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FUNDAMENTALS OF ACCOUNTING

A TEXT DESIGNED PRIMARILY FOR A SURVEY COURSE

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EDITED BY

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FUNDAMENTALS OF ACCOUNTING

A TEXT DESIGNED PRIMARILY FOR A SURVEY COURSE

BY

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PREFACE

The general outline of this second edition follows the pattern of the original text which was published in 1934, but several significant changes have been made. Chiefly, these are as follows: (1) two new chapters have been added on corporate accounts and cost accounting, respectively; (2) the problems are new with few exceptions and the questions have been improved and augmented; (3) the various sources of surplus are recognized throughout the revision; (4) illustrations have been improved; (5) transactions are journalized at the outset in Part II, and this change with others has resulted in a further condensation of subject matter; and (6) the limitations of financial statements have been further emphasized.

The author is indebted to many teachers and friends for their wise criticism of the first edition and for their valuable suggestions relative to this revision.

HARRY H. WADE

IOWA CITY, IOWA
July 10, 1941

CONTENTS

PROBLEMS

INTRODUCTION

The economic system now existing in the United States may be described as an exchange economy with highly specialized production and distribution activities. These economic activities center around the privately owned business enterprise whose underlying motive and incentive is to operate at a profit. The character of the enterprise varies with the form of ownership, the nature of operation, and the scope or magnitude of operation.

Form of Ownership. The principal forms of ownership in the United States are the single proprietorship, the partnership and the corporation.

A *single proprietorship* is owned and controlled by one individual who assumes all risks and responsibilities but who receives all gains. It is a desirable form for the small enterprise which requires little investment. Few legal restrictions are imposed by states, and the owner's reward is directly dependent on his ability and effort.

A *partnership* is owned and controlled by two or more individuals in accordance with a contractual agreement, expressed or implied, whereby gains or losses are shared in agreed proportions. States impose only slight restrictions and, as there are two or more individuals contributing to investment and management, the partnership has certain advantages over the single proprietorship in the larger enterprise. Each partner generally is responsible for the business activities of the others, and this may develop into a serious disadvantage in the event of an ill-chosen partner. Also, the partnership is dissolved contractually by the death or withdrawal of any partner, and this may necessitate a discontinuance of the business.

A *corporation* is owned and controlled by persons known as stockholders, or shareholders, of whom there may be but a few or thousands.

Ownership of a corporation is measured in units known as shares, and each stockholder's proportion of ownership is measured by the relation of the number of shares which he holds to the total number of shares outstanding. A stock certificate is a printed and properly attested document representing one or more shares of ownership. In England corporate owners are generally referred to as shareholders,

but in the United States they are more commonly known as stockholders.

Stockholders control and manage the corporation indirectly by electing a board of directors who in turn exercise direct control through their appointed officers. Stockholders receive their share of the profits of the corporation only after the directors vote to distribute such profits as dividends.

An enterprise wishing to function as a corporation must obtain a charter from the state in which it expects to conduct business or have its principal office. The corporation is created by this charter and becomes a legal entity, separate and apart from its stockholders.

Partnership or Corporation? If an enterprise is to be owned by more than one individual, obviously a choice must be made between the partnership and corporate forms. Corporations have the following primary characteristics:

1. Limited liability. Since a corporation is a separate legal entity, apart from its stockholders, it alone is liable for its acts and debts and creditors generally cannot look beyond the corporate assets for satisfaction of their claims. Thus a stockholder's loss is limited generally to the amount which he has invested in acquiring the shares.

2. Mobile ownership. A stockholder may transfer all or a portion of his interest in the corporation merely by selling his stock certificate. The stocks of practically all large corporations are actively bought and sold daily through organized stock exchanges and the corporation, as an entity, is not affected by such transfers of ownership.

3. Small units of ownership. The unit of ownership in a corporation is a share and the price of one share, even in the largest corporations, is frequently less than $100.00.

The three characteristics described above attract investors from all classes and make possible the accumulation of vast amounts of wealth for corporate purposes.

The partnership, on the other hand, does not possess these characteristics which are so attractive to the casual investor. The partnership is not a legal entity and each partner generally is personally responsible for the acts and debts of the enterprise. Creditors may look beyond the assets of the partnership, as such, and reach into the private possessions of any or all partners in satisfaction of their claims after the partnership assets have been exhausted. It is possible, however, to limit the liability of certain partners to the amounts which they have invested in the partnership by proper legal action, but one partner at least must be a general partner, that is,

liable in full. Furthermore, a partner who wants to dispose of his interest in the partnership must first obtain the consent of the other partner or partners or else subject himself to a damage suit for violation of the partnership agreement. It is comparatively difficult to transfer an interest in a partnership. In general, the partnership form is not suited to the casual investor.

Legal and accounting advice should be obtained at the time of organizing a business. There are many considerations to be weighed before a choice is made between the partnership and corporate forms. For example, the federal income tax liability may be significantly more or less depending on the type of ownership.

Nature of Operation. The character of a business enterprise is greatly affected, of course, by the nature of its operation. The principal classes of operation are listed below:

1. Retail and wholesale trade
2. Manufacturing
3. Transportation (Railways, shipping, airways, pipe lines, trucking, etc.)
4. Extraction (Agriculture, mining, oil, etc.)
5. Financial (Banking, insurance, investment, etc.)
6. Utilities (Electricity, gas, water)
7. Communication (Telephone, telegraph, radio)
8. Construction (Buildings, bridges, highways, homes, etc.)
9. Amusements and recreational (Theaters, summer resorts, etc.)
10. Professions (Law, medicine, dentistry, engineering, accounting, etc.)

No essential relation exists, necessarily, between type of ownership and nature of operation. That is, single proprietorship, partnership, or corporate forms may be found in any or all the operations listed above with the exception of professions, and these are, invariably, partnerships or single proprietorships.

Scope or Magnitude. Business enterprises vary in magnitude from the familiar corner grocery store to industrial giants such as the General Motors Corporation. In general, small enterprises are single proprietorships or partnerships, and larger enterprises are corporations. This is the natural result of the characteristics of each form of ownership in relation to its ability to attract and obtain investment in the enterprise.

The Business Transaction. The privately owned enterprise is operated for profit and to that end it engages in various business transactions such as the purchase of buildings, equipment, merchandise, materials, and supplies; the employment of labor, salesmen, office clerks, and others; the sale of products or services; and expenditures for such items as taxes, light, heat, power, or advertising. Investments in the enterprise may be obtained by the sale of shares; money may be borrowed from banks; and profits may be distributed to owners. A small business enterprise may have only a few transactions each month, but larger concerns may have thousands of transactions each day. In every case, the essential facts of each transaction should be recorded in such manner that a financial history of operations is available in either detailed or summarized form.

Accounting and the Business Enterprise. Accounting facilitates the management of an enterprise, irrespective of its type of ownership, nature of operation, or size, by providing through a body of principles and technical mechanisms:

1. A systematic and convenient method of recording the essential facts of each business transaction;
2. Periodic summaries of recorded transactions in the form of financial statements;
3. Methods of analyzing and interpreting statements.

Additional Functions of Accounting. Originally, the accountant was responsible to owners and management only, but as the size and interrelations of business units increased, his responsibility has spread to employees, consumers, and the public in general. Federal and state income tax laws, the Federal Securities and Exchange Act, the Social Security Act, and other federal and state laws have given the accountant additional responsibilities in respect to governmental control.

The present functions of accounting may be divided into two broad classifications: (1) functions of the private accountant, and (2) functions of the public accountant.

1. Functions of the Private Accountant

The private accountant is in the employ of the owners of the business enterprise and his responsibility is primarily, at least, to the owners and managers of the business unit. His functions are related to the recording, summarizing, and interpreting of the financial data of the unit. In addition, he frequently prepares the various returns

and reports in respect to taxes imposed by federal, state, and local governments.

2. Functions of the Public Accountant

The public accountant is independent of owner and management and his responsibility is professional; that is, he renders impartial services which are governed solely by certain principles, procedures, and ethics which are recognized by the profession of accountancy.

Services which the public accountant renders are as follows:

a. Audits. The public accountant is engaged by the business enterprise to make an impartial and independent examination of their accounts and statements and to give an opinion of their dependability and fairness. Impartial and independent opinion is of value to the business unit in submitting its statements to banks and persons as a basis for further credit. In the corporate form, ownership and management are often widely divorced, and the audited statement may serve as an independent report to owners regarding the activities of their management.

Before new securities may be offered for sale to the public, within certain limits, the Securities Act requires an independent opinion, by the public accountant, in respect to the financial statements of the issuer. Corporations whose stocks are listed on the organized stock exchanges of the country are required to have annual audits by independent public accountants.

b. System Installations. The installation and improvement of accounting systems is an important phase of the public accountant's work.

c. Tax Reports. The public accountant frequently prepares the complex and numerous tax returns and reports required of the business unit by federal, state, and local governments.

d. Special Investigations. Investigations are made by the public accountant to uncover fraud, or to determine the amount of fraud involved; to determine equities of various classes of stockholders upon reorganization of corporate concerns; to prepare reports for creditors on bankrupt concerns; to prepare reports and opinions on whether or not the terms of certain contracts, such as royalty or licensing contracts, have been complied with; to prepare special reports in respect to fixed assets, cash, or inventories; to act as consultant in the preparation of budgets; and to perform many other special services.

The Profession of Accounting. All the states have enacted legislation governing the practice of public accounting and prescribing the

conditions under which one may become a certified public accountant. The American Institute of Accountants is the recognized national society of the profession and to become a member of that society, at present, one must be a certified public accountant. Each state has its own professional society which cooperates with the national society in maintaining the standards of the profession. At present there are approximately 25,000 certified public accountants in the United States.

The American Institute of Accountants has prescribed certain ethics, principles, and procedures which govern the public accountant and a member is duly punished for any violations thereof. The Institute publishes the "Journal of Accountancy" monthly which contains many articles and discussions of value to the accountant.

Mention should also be made of the American Accounting Association, whose members are chiefly teachers of accounting and whose quarterly publication, "The Accounting Review," contains many important contributions, particularly in the field of theory.

Accounting Defined.

"In terms of relation to the operation of the business enterprise, accounting may be defined as the body of principles and the technical mechanism by which the economic data of the particular concern are classified, recorded, and periodically presented and interpreted, for the purpose of effective control and administration."[1]

Although accounting is concerned primarily with the privately owned enterprise organized for profit, it is equally applicable to the business affairs of governments and other non-profit organizations such as fraternal societies, clubs, educational, religious, and charitable institutions.

Bookkeeping is the comparatively narrow process of actually recording and summarizing financial transactions in conformance with accounting procedures and principles. The relation of accountant and bookkeeper is comparable to the relation of architect and carpenter or to that of civil engineer and draftsman.

Plan of Study. The purpose of this text is to acquaint students with terminology and basic principles only. Bookkeeping technique is introduced only when it is considered necessary to an understanding of principles.

Part I discusses the content, form and interpretation of financial statements as prepared for a *retail* or *wholesale enterprise.* Considera-

[1] W. A. Paton, "Essentials of Accounting." The Macmillan Company (1938).

tion is given to variations which are found in different types of ownership.

Part II describes bookkeeping technique as it is employed to obtain that information which is embodied in the financial statements. In Part I the student acquires familiarity with considerable terminology and an understanding of the end which bookkeeping technique is designed to attain. This affords a background for the study of Part II. In other words, the student gains a general understanding of what is to be done before he considers the methods of doing it.

Part III discusses *manufacturing statements* and *accounts*.

Part IV introduces certain *control features,* such as the voucher system and subsidiary ledgers.

Part V introduces many of the important problems which arise in respect to fixed assets such as *depreciation, depletion, appraisal, sales,* and *trade-ins*. Because of the importance of the corporate form of ownership, Part V also includes an additional discussion of *corporate accounts*.

Part VI explains the basic procedures of factory job order cost accounting.

In a survey course of short duration, it is obviously impossible to cover the entire field of accounting. All three forms of ownership are presented but only the retail, wholesale, and manufacturing types of operation are considered. It should be understood, however, that the basic principles which are introduced are equally applicable to other types of operation, with few exceptions. It may be stated, also, that the magnitude of operation does not affect accounting principles.

PART I

CHAPTER I

THREE FUNDAMENTAL EQUATIONS

There are three periodic summaries of recorded transactions which the owners and managers of a business enterprise should have available for review and interpretation. These summaries are prepared in the form of statements which are generally known as:

1. The Balance Sheet
2. The Profit and Loss Statement
3. The Statement of Change in Net Worth

It is the purpose of this chapter to describe the nature and basic content of each statement in the form of an equation. An understanding of these equations and, in particular, of how they are related is of fundamental importance to an understanding of the formal statements which are to be studied in succeeding chapters.

Equation 1. Balance Sheet:

Assets = Equities

The assets of an enterprise are the useful and valuable properties in its legal possession. Land, buildings, automobiles, office equipment, store equipment and fixtures, machinery, tools, cash, merchandise, materials, supplies, patent rights, copyrights, and receivables are common examples of assets. (Receivables are sums of money owing to the enterprise by its customers, employees, or others.)

An equity is an interest in assets. Equities are of two distinct types—liabilities and net worth.

The debts, or sums of money owing by an enterprise, are liabilities. They arise when anything is purchased by the enterprise with the agreement that payment will be made later or when cash is obtained by borrowing. Liabilities are the claims of creditors, and as such they usually represent a general claim on all assets but not on any

one particular asset. Creditors' claims, however, are usually satisfied at some definite future date by the payment of cash.

The net worth equity is the owner's residual interest in the assets of the enterprise. Net worth arises out of the original investment by the owner or owners and is affected subsequently as follows:

1. If a profit is made, the owner's equity increases. Profit is made by exchanging an asset for one of greater value. The consequent net increase in assets is claimed rightfully by the owner. If the enterprise operates at a loss, net worth is decreased and the claim of the owner against the assets is accordingly reduced.
2. Additional investments by the owner to augment the original investment increase net worth. On the other hand, withdrawals by the owner, for personal use or because the enterprise has a larger investment than it can utilize efficiently, decrease net worth.

Equation 1 may be expanded to:

$$\textbf{Assets} = \textbf{Liabilities} + \textbf{Net worth}$$

and by transposition may be written also as:

$$\textbf{Assets} - \textbf{Liabilities} = \textbf{Net worth}$$

Every transaction affects equation 1 in some manner, but *equilibrium always exists.*

Illustrative Transactions:

January 1. Mr. Jones decides to start a real-estate business and to that end invests $50,000.00 cash in the enterprise.

Equation 1. January 1

Assets (Cash $50,000.00) − Liabilities (none) = Net worth ($50,000.00)

Net worth arises out of the original contribution by the owner, Mr. Jones.

January 10. Jones obtains possession of a plot of land from Smith. The cost is $10,000.00, and Jones promises to pay Smith 12 days later, on January 22.

Equation 1. January 10

$$\textbf{Assets}\left\{\begin{array}{lr} \textbf{Cash} & \$50{,}000.00 \\ \textbf{Land} & 10{,}000.00 \\ \hline \textbf{Total} & \$60{,}000.00 \end{array}\right\} - \textbf{Liabilities (Smith, \$10,000.00)} = \textbf{Net worth (\$50,000.00)}$$

By obtaining the land on a promise to pay later, Jones' enterprise incurs a debt. The equation may be written as follows:

Assets (\$60,000.00) = Liabilities (\$10,000.00) + Net worth (\$50,000.00)

The liability of \$10,000.00 is the claim of Smith, an "outsider," on the assets of \$60,000.00; and the net worth of \$50,000.00 is the residual claim of the owner. There is an essential difference in the two types of equities, as Smith's claim must be satisfied by a payment of cash in the near future whereas the owner's claim need never be satisfied until the business is liquidated.

January 20 (a). Jones sells the land for \$11,000.00 to Brown, receiving \$4,000.00 in cash and Brown's promise to pay the balance of \$7,000.00 two months from date.

Equation 1. January 20 (a)

$$\textbf{Assets}\left\{\begin{array}{lr} \textbf{Cash} & \textbf{\$54,000.00} \\ \textbf{Brown} & \textbf{7,000.00} \\ \cline{2-2} \textbf{Total} & \textbf{\$61,000.00} \end{array}\right\} - \textbf{Liabilities (Smith, \$10,000.00)} = \textbf{Net Worth (\$51,000.00)}$$

The total assets have increased from \$60,000.00 to \$61,000.00 as the asset land (\$10,000.00) was exchanged for the assets cash (\$4,000.00) and receivable (\$7,000.00). The net increase of \$1,000.00 is a profit, and this, as previously stated, increases net worth.

January 20 (b). In selling the land Jones disburses \$200.00 for travel, telephone, and telegraph expenses.

Equation 1. January 20 (b)

$$\textbf{Assets}\left\{\begin{array}{lr} \textbf{Cash} & \textbf{\$53,800.00} \\ \textbf{Brown} & \textbf{7,000.00} \\ \cline{2-2} \textbf{Total} & \textbf{\$60,800.00} \end{array}\right\} - \textbf{Liabilities (Smith, \$10,000.00)} = \textbf{Net worth (\$50,800.00)}$$

The disbursement for expenses is an adjustment of the profit to \$800.00 and produces a decrease of \$200.00 in total assets and net worth.

January 22. Jones pays Smith \$10,000.00 cash, fulfilling his promise of January 10.

Equation 1. January 22

$$\textbf{Assets}\left\{\begin{array}{lr} \textbf{Cash} & \textbf{\$43,800.00} \\ \textbf{Brown} & \textbf{7,000.00} \\ \cline{2-2} \textbf{Total} & \textbf{\$50,800.00} \end{array}\right\} - \textbf{Liabilities (none)} = \textbf{Net worth (\$50,800.00)}$$

Cash is decreased $10,000.00 to remove the liability to Smith. The net worth is unchanged, as this transaction did not affect profit and was not a withdrawal or an additional investment by the owner.

January 25. Jones withdraws $500.00 cash for personal use.

Equation 1. January 25

$$\text{Assets}\left\{\begin{array}{lr}\text{Cash} & \$43{,}300.00\\ \text{Brown} & 7{,}000.00\\ \hline \text{Total} & \$50{,}300.00\end{array}\right\} - \text{Liabilities (none)} = \text{Net worth } (\$50{,}300.00)$$

A withdrawal by the owner decreases net worth.

January 30. Jones makes an additional investment of $10,000.00 cash.

Equation 1. January 30.

$$\text{Assets}\left\{\begin{array}{lr}\text{Cash} & \$53{,}300.00\\ \text{Brown} & 7{,}000.00\\ \hline \text{Total} & \$60{,}300.00\end{array}\right\} - \text{Liabilities (none)} = \text{Net worth } (\$60{,}300.00)$$

An additional investment by the owner increases net worth.

January 31. Jones borrows $5,000.00 cash from the First National Bank on a written promise to repay in 60 days.

Equation 1. January 31

$$\text{Assets}\left\{\begin{array}{lr}\text{Cash} & \$58{,}300.00\\ \text{Brown} & 7{,}000.00\\ \hline \text{Total} & \$65{,}300.00\end{array}\right\} - \text{Liabilities (loan } \$5{,}000.00) = \text{Net worth } (\$60{,}300.00)$$

Assets and liabilities are increased $5,000.00 each, but net worth is not affected.

(Assume that no further transactions occurred in January.)

Equations Derived from Illustrated Transactions. In this illustrative case equation 1 was prepared after each transaction, but obviously this would not be feasible or desirable in actual practice. Ordinarily a statement, based on this equation, is prepared once a month at most, and frequently it is prepared but once a year.[1]

If Jones had prepared the equation on January 1, when he started

[1] Banks, however, prepare equation 1 in statement form at the end of each day.

his business, and again on January 31, the two equations shown below would be available for review.

Equation 1. January 1

Assets ($50,000.00) − Liabilities (none) = Net worth ($50,000.00)

Equation 1. January 31

Assets ($65,300.00) − Liabilities ($5,000.00) = Net worth ($60,300.00)

These equations show the financial condition of Mr. Jones' enterprise on January 1 and January 31, respectively. That is ,they show assets owned, debts owing, and resulting net worth at the beginning and end of the month. It is apparent that certain transactions occurred during January which increased net worth $10,300.00. Part of this increase was due to profitable operations and, as Mr. Jones organized his enterprise with this purpose in mind, equation 2 is prepared for his inspection.

Equation 2. Profit and Loss Statement:

Sales − Cost of goods sold − Expenses = Profit

The selling prices of the commodities sold comprise the sales. Their purchase cost to the enterprise is the cost of the goods sold. All necessary expenses of operation, such as salaries, light, heat, advertising, etc., are included in the expense factor. The equation is prepared periodically, possibly once a month. An adequate record of all transactions must be kept, of course, to provide the information needed in preparing equations. The nature of these records is explained in a later chapter and for the present it is only necessary to realize that such records do exist.

In this illustrative case, Mr. Jones had sales of $11,000.00, the cost of the land sold was $10,000.00, and expenses amounted to $200.00. His equation for the month of January is as follows:

Equation 2. Month of January

Sales ($11,000.00) − Cost of goods sold ($10,000.00) − Expenses ($200.00) = Profit ($800.00)

The increase in net worth of $10,300.00 is attributed partly to the profit of $800.00. But equation 3 provides a complete explanation of the increase, giving effect not only to profit but also to the owner's additional investments and withdrawals.

Equation 3. The Statement of Change in Net Worth:

Net worth, start of period + Profit + Additional investment − Withdrawals = Net worth, end of period

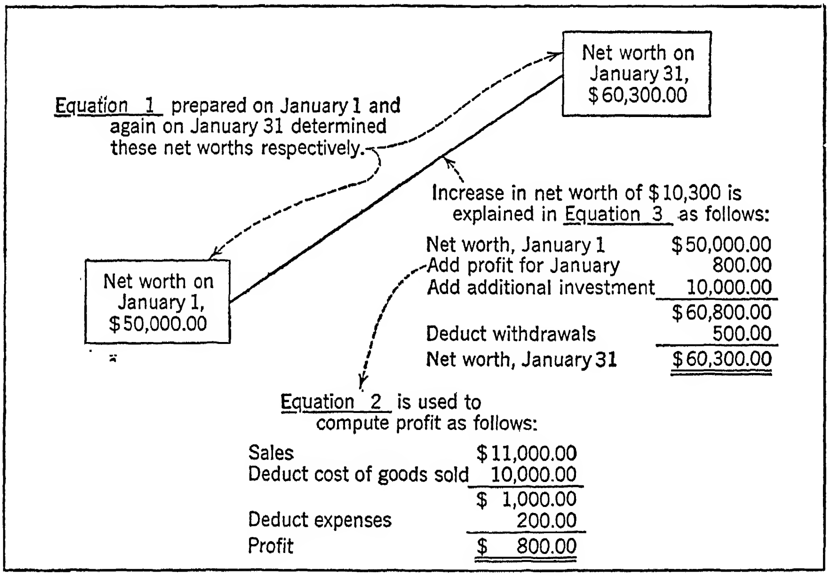
The net worth at the start of the period is obtained from equation 1 prepared at that time; the profit is obtained from equation 2; additional investment and withdrawals are obtained from the record made of such transactions. Mr. Jones' equation 3 for January is as follows:

Equation 3. Month of January

Net worth, January 1 ($50,000.00) + Profit ($800.00) + Additional investment ($10,000.00) − Withdrawals ($500.00) = Net worth, January 31 ($60,300.00)

Test of Correctness. On January 31 equation 1 resulted in a net worth of $60,300.00. This same net worth figure was obtained in a different manner by using equation 3. It may be assumed therefore that the three equations were prepared correctly.

The following diagram illustrates the relations of these equations:



Equation 1 describes the financial condition at a particular instant of time. Equations 2 and 3 describe the financial operations for a period of time and account for the change in net worth during the period. In the event that equation 1 results in a negative net worth, the enterprise

is said to be insolvent. If equation 2 results in a negative figure, the enterprise has operated at a loss instead of a profit.

Although these equations express the fundamental relations, they do not show sufficient detail for purposes of reasonable interpretation and analysis. Consequently equation 1 is elaborated and presented in the form of a balance sheet; equation 2 in the form of a profit and loss statement; equation 3 in the form of a statement of change in net worth. Subsequent chapters illustrate these statements.

QUESTIONS

1. The Allwood Company increased its assets from $160,000.00 to $180,000.00 by borrowing $20,000.00 from the bank. Was net worth affected by the transaction?
2. Discuss the similarity and dissimilarity of liabilities and net worth.
3. Why should equation 1 balance?
4. What is the title and underlying equation of each statement?
5. Define an asset; a liability.
6. When is an enterprise insolvent?
7. Can the profit for a period be determined by an inspection of equation 1 at the beginning and end of that period, or is it necessary to have the information used in equation 2?
8. How is it possible to know when the three equations have been correctly prepared?
9. In equation 2, does the cost of goods sold include the expense of selling the goods?
10. Which equation could be termed "static"?
11. If the owner withdraws $50.00 in cash for personal use, is that considered an expense of the business? Does it affect profit? net worth?
12. Describe a transaction which:

    a. Increases assets and increases liabilities.
    b. Decreases assets and decreases liabilities.
    c. Increases assets and increases net worth.
    d. Decreases assets and decreases net worth.

13. JERRY COMPANY

PROFIT AND LOSS STATEMENT
(EQUATION 2)

JUNE 30, 1940

Selling price of goods sold	$ 3,000.00
Deduct cost of goods sold	2,000.00
	$ 1,000.00
Deduct expenses	600.00
Profit	$ 400.00

Criticize this presentation of equation 2.

14. The net worth of the Adams Cleaning Company on December 1 was $100,000.00 and on December 31, one month later, was $110,000.00. Mr. Adams

made no additional investment in his business during the month but he did withdraw \$1,300.00 to buy a piano for his son. Determine the profit of the business for December.

15. On December 31, 19—, the assets of the Claney Company totaled \$300,000.00. One year later on December 31, 19—, they totaled \$280,000.00. It was ascertained, however, that the business operated at a profit of \$40,000.00 during the year. Assuming no additional investments or withdrawals, did the liabilities increase or decrease, and how much?

CHAPTER II

THE BALANCE SHEET

The illustrated balance sheet, Fig. 1, was prepared from the records of the Falby Hardware Company, a single proprietorship doing a retail hardware business. Fig. 1 illustrates what is known as the account form of balance sheet. Another form, known as the report form of balance sheet, is sometimes advantageous. The report form, illustrated in Fig. 2, lists the liabilities and net worth under the assets and emphasizes the deduction of liabilities from assets to obtain net worth as indicated in equation 1. Either form is acceptable. The balance sheet differs from the equation in that each type of asset and liability is shown rather than totals only. Furthermore, assets and liabilities are classified as current or fixed.

EXPLANATION OF THE BALANCE SHEET

Current Assets. Cash and other assets, which will be converted into cash in the regular course of business within one year subsequent to the date of the balance sheet in which they are shown, are termed current.

1. Cash. Currency, checks, bank drafts, and money orders should be included, and as such may be on hand or in the bank.

2. Notes Receivable (Trade). The written promise of a customer to pay a certain sum of money on demand or on a determinable future date is termed a note receivable (trade). Irrespective of whether notes are interest-bearing or non-interest-bearing, they are shown on the balance sheet at their face value. Notes which are signed by other than customers, such as employees' notes, are termed notes receivable (other) or notes receivable (employees). If the business had owned any such notes, they would have been shown as a separate item on the line below notes receivable (trade), Fig. 1.

3. Accounts Receivable (Trade). This asset consists of personal legal claims against customers to whom merchandise has been sold with an understanding that cash will be paid later. When merchandise is sold on this basis, the transaction is referred to as a charge sale or

FALBY HARDWARE COMPANY

BALANCE SHEET, DECEMBER 31, 1940

ASSETS

Current Assets:			
Cash		$ 8,000.00	
Notes Receivable (trade)		12,000.00	
Accounts Receivable (trade)		60,000.00	
Merchandise Inventory		40,000.00	
			$120,000.00
Fixed Assets:			
Land		$20,000.00	
Building (cost)	$100,000.00		
Less Reserve for Depreciation	5,200.00	94,800.00	
Equipment (cost)	$ 30,000.00		
Less Reserve for Depreciation	4,800.00	25,200.00	
			140,000.00
Total Assets			$260,000.00

LIABILITIES

Current Liabilities:		
Notes Payable (trade)	$10,000.00	
Accounts Payable (trade)	30,000.00	
		$ 40,000.00
Fixed Liabilities:		
Mortgage Payable		50,000.00
Total Liabilities		$ 90,000.00

NET WORTH

Falby, Proprietor		170,000.00
Total Liabilities and Net Worth		$260,000.00

FIG. 1. Account Form of Balance Sheet.

Note: Dollar marks should be used in the statements in accordance with the following rule: Place a dollar mark at the head of each amount column and repeat within a column only after a line has been drawn.

FALBY HARDWARE COMPANY

BALANCE SHEET, DECEMBER 31, 1940

ASSETS

Current Assets:				
Cash		$ 8,000.00		
Notes Receivable (trade)		12,000.00		
Accounts Receivable (trade)		60,000.00		
Merchandise Inventory		40,000.00		
			$120,000.00	
Fixed Assets:				
Land		$20,000.00		
Building (cost)	$100,000.00			
Less Reserve for Depreciation	5,200.00			
		94,800.00		
Equipment (cost)	$ 30,000.00			
Less Reserve for Depreciation	4,800.00	25,200.00	140,000.00	
Total Assets				$260,000.00

LIABILITIES

Current Liabilities:			
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Accounts Payable (trade)	30,000.00		
		$ 40,000.00	
Fixed Liabilities:			
Mortgage Payable		50,000.00	
Total Liabilities			$ 90,000.00

NET WORTH

Falby, Proprietor	170,000.00
Total Liabilities and Net Worth	$260,000.00

FIG. 2. Report Form of Balance Sheet.

a sale on account. Accounts receivable is classed as a current asset because customers normally will pay the amounts they owe within the time limit specified, which is generally 30, 60, or 90 days. The possibility that certain customers may never pay is a contingency which affects the amount at which this item should be stated in the balance sheet and which will be recognized in a later chapter. Accounts receivable (other) may be created by a sale of property other than the regular merchandise offered for sale, with an understanding that cash will be received later. It may be created, also, by the loan of money to an employee.

4. Merchandise Inventory. The goods or wares in which a business regularly deals, such as groceries in a grocery store or hardware in a hardware store, are known as merchandise. The merchandise on hand may be termed the merchandise inventory because a physical count or inventory of the goods is made when statements are to be prepared. The inventory is generally stated at cost although there are exceptions to this general rule.

Fixed Assets. Fixed assets will not be converted into cash normally but will wear out in use. Such assets are essential to the operation of the business, and funds invested in them are more or less tied up permanently. Examples of this classification are land, buildings, office equipment, office furniture, machinery, trucks, and store equipment.

A prominent accountant has commented that "all machinery is on an irresistible march to the junk heap."[1] This is true of all fixed assets with the exception of land. A building which had cost $50,000.00 in 1912 may have been worth $85,000.00 in 1928 because of price inflation. But sometime inevitably the building will become worthless. In general, this is the result of two facts:

1. The building will wear out as a result of wear and tear from use and the destructive action of wind, sun, rain, cold, and heat (physical depreciation).

2. The building will become inadequate or obsolete because of improved methods of construction and changing styles of architecture (functional depreciation).

It is customary to estimate the life of a fixed asset at the time of its purchase, taking into consideration both physical and functional depreciation. If it is estimated that the asset will become obsolete in 35 years, although it will not actually wear out for 40 years, the estimated life should be 35 years only.

[1] Hatfield, "Accounting," page 130. D. Appleton and Company (1930).

Assume the following:

Asset purchased, building
Date of purchase, January 1, 1939
Cost, $100,000.00
Estimated life, 35 years
Estimated scrap value at end of life, $9,000.00
Estimated loss over 35-year period, $91,000.00.

In accordance with a commonly used method, the yearly loss in value is estimated to be $2,600.00 $\left\{\frac{\$91,000.00}{35 \text{ years}}\right\}$. This loss is termed the annual or yearly depreciation. A balance sheet prepared on December 31, 1939 (one year after the asset was purchased), would show the building as follows:

Fixed Assets:		
Building (cost)	*$100,000.00*	
Less Reserve for Depreciation	*2,600.00*	*$97,400.00*

On December 31, 1940 (two years after the asset was purchased) the balance sheet would appear as follows:

Fixed Assets:		
Building (cost)	*$100,000.00*	
Less Reserve for Depreciation	*5,200.00*	*$94,800.00*

The reserve for depreciation is the depreciation which has accrued from the date of purchase to the date of the balance sheet. It should be observed that as the reserve for depreciation increases the amount at which the building is stated in the balance sheet decreases. This net amount on a given date is known as the book value of the asset on that date. At the end of 35 years the book value in the illustration above will equal the scrap value of $9,000.00. During the life of the fixed asset, book value does not reflect the market or sale value which may be more or less. If the actual sale value of the asset varies considerably from the book value, a notation may be made at the bottom of the balance sheet to convey this fact. The subjects of fixed assets and depreciation will be developed in greater detail in later chapters.

Current Liabilities. Liabilities which are due within one year of the date of the balance sheet in which they are shown are classed as current.

1. Notes Payable (*Trade*). A written promise to pay a certain sum of money on demand or at a determinable future date is known as a note payable. If a note is due to be paid within one year of the date of the balance sheet in which it is shown, it should be shown

as a current liability. Notes payable to creditors are designated as notes payable (trade); those issued to other than creditors may be designated as notes payable (other) or, for example, notes payable (banks).

2. Accounts Payable (Trade). When merchandise is bought with a promise that payment will be made some time in the future, the transaction is referred to as a purchase of merchandise on account. The obligation which is created by such a purchase is known as an account payable (trade). If property other than merchandise is bought on account, the obligation which is created is known as an account payable (other).

Fixed Liabilities. Liabilities which are not due within one year subsequent to the date of the balance sheet in which they are shown are classed as fixed. Such liabilities are written promises to pay in the form of mortgages payable, bonds payable, or long-time notes payable. But liabilities which are ordinarily fixed should be shown as current if they mature within one year of the date of the balance sheet.[1]

Net Worth. Net worth should be obtained by subtracting total liabilities from total assets in accordance with equation 1. Fig. 1 illustrates the method of showing net worth for a single proprietorship. The net worth of a partnership or a corporation is obtained from equation 1 also, but the form of showing it on the balance sheet varies with each type of ownership. Chapter IV describes both partnership and corporate forms of net worth.

ANALYSIS AND INTERPRETATION OF THE BALANCE SHEET

The form of the balance sheet is important to its analysis and interpretation. A total of each classification must be shown, and individual items must be described clearly to avoid any doubt as to their nature.

Working Capital and Working Capital Ratio. Working capital is the difference between total current assets and total current liabilities. In the Falby Hardware Company's balance sheet, Fig. 1, on page 18, the working capital is $80,000.00.

[1] If cash has been set aside to provide for the payment of these liabilities, such cash should be shown in the balance sheet under a special classification instead of being shown in the regular manner under current assets. In this event the liabilities to be liquidated by this special fund should be classed as fixed even though they are due to be paid within the year.

The working capital ratio is the ratio of the total current assets to the total current liabilities. For the Falby Hardware Company on December 31, 1940, this ratio is 3 to 1.

In judging the financial stability of a business, too much importance must not be given to the working capital or to the ratio as their significance is largely dependent on the nature of the current assets. The current liabilities are quite definite and must be satisfied to the full extent of $40,000.00. The current assets consist of $8,000.00 cash and $112,000.00 in other assets, which may or may not be converted into cash in time to be utilized in the prompt liquidation of the current liabilities. Notes receivable, providing they are negotiable, may be sold to a bank or note broker and so be converted into cash at any time if economic conditions are reasonably normal. As the merchandise has been stated at cost, more than $40,000.00 may be received when it is sold,[1] but it may not be sold for months. Also, in the event that merchandise is sold on account, the receipt of cash will be delayed further until the resulting accounts can be converted into cash. Accounts receivable may not be collected in full, and in any event some collections will be considerably delayed. These possibilities indicate that the working capital ratio is an optimistic measure of the ability to pay current debts. There is, however, a satisfactory factor of safety in the working capital of the Falby Hardware Company.

Current ratios for various types of comparatively large manufacturing concerns are shown in the table[2] on page 24.

Acid Test Ratio. On the assumption that the conversion of inventories into cash is too uncertain and slow, the acid test ratio measures ability to pay current liabilities out of cash and receivables only.

$$\frac{\textit{Cash} + \textit{Receivables}}{\textit{Current liabilities}} = \textit{Acid test ratio}$$

An unhealthy working capital position may exist when the merchandise asset is too large in proportion to total current assets. This condition will not be revealed by the working capital ratio alone, and it is therefore advisable to determine the acid test ratio also.

[1] Expenditures for such items as salesmen's salaries and delivery expense are necessary to sell the merchandise and, theoretically at least, any amount received in excess of the cost must be utilized to meet such additional expenditures and to provide funds for reasonable profit withdrawals. Consequently, present liabilities may be liquidated only by the recovered cost element in the merchandise.

[2] Securities and Exchange Commission, Statistical Series, Release 374, "Survey of American Listed Corporations," Volume 1 (1934–1938).

Percentage of Net Worth to Total Assets. The ratio of net worth to total assets, when compared from period to period, indicates the trend of the owner's interest in the assets of the enterprise. An examination of the balance sheets of several hundred industrial corporations of average size shows that stockholders (owners) of such companies have, on the average, an equity equal to about 78% of the total assets. The balance sheets of over two hundred trading companies selected at random show an average owner's equity of 68% of total assets. Balance sheets of the larger industrial and commercial corporations show an average owner's equity of about 90%. On the other hand, the balance sheets of American banks show, on the average, an owner's equity in total assets of only 14%. When the owner's percentage of equity in total assets is small, the condition is sometimes described as "operating on a shoe-string."[1]

TABLE OF WORKING CAPITAL RATIOS

No. of Concerns	Nature of Operations	Average Ratios December 31,	
		1937	1938
10	Agricultural Machinery and Tractors	4.97 to 1	7.37 to 1
10	Automobiles	3.32 to 1	3.52 to 1
20	Chemicals and Fertilizers	5.49 to 1	7.07 to 1
6	Cigarettes	5.61 to 1	6.91 to 1
12	Containers, Metal and Glass	3.08 to 1	5.45 to 1
4	Meat Packing	3.90 to 1	4.21 to 1
10	Office Machinery and Equipment	5.00 to 1	5.75 to 1
10	Steel	4.19 to 1	6.05 to 1
16	Tires and Other Rubber Products	3.85 to 1	6.17 to 1

Other Relations Generally Considered to be Useful in the Analysis of the Balance Sheet:

1. Percentage of fixed assets to total assets.
2. Percentage of fixed liabilities to total liabilities.
3. Percentage of inventories to total current assets.
4. Percentage of cash to total current liabilities.

"Ratio analysis is genuinely useful in indicating probabilities and suggesting weaknesses—but not in taking the place of good judgment or in displaying certainties."[2]

[1] From "Shoestring Banking," by W. A. Paton. "Certified Public Accountant," page 333 (June, 1932).

[2] Strain, "Industrial Balance Sheets." Harper and Brothers (1929).

Trends in Balance Sheet Ratios and Percentages. The trend of ratios and percentages from month to month or from year to year should be closely watched. For example, if the working capital ratio is decreasing from year to year, this fact should serve as a warning to management that a change in financial structure or in operating policy must be made if financial disaster is to be avoided. The ratios and percentages on any one day are important indicators, but the trend of these items from year to year is of greater significance.

Comparative Balance Sheets. Favorable or unfavorable changes in financial condition are disclosed by the comparative balance sheet, prepared at least annually in a form similar to that of Fig. 3.

1. Working Capital. On December 31, 1939, the Falby Hardware Company had current assets of $103,000.00 One year later on December 31, 1940, they had current assets of $120,000.00. This increase of $17,000.00 is one indication of an improved financial condition. But current liabilities increased $2,000.00, and this resulted in a net increase in working capital of only $15,000.00. (It should be observed that this increase is reflected chiefly in accounts receivable and notes receivable.)

2. Cash and Receivables. There is no significant change in the cash position except that cash would be expected to increase somewhat in proportion to total current assets. However, the cash on hand December 31, 1940, seems to be sufficient in relation to current liabilities, and it is possible that the $9,000.00 on hand December 31, 1939, was too large for ordinary needs.

Receivables have increased $20,000.00, of which $10,000.00 is in notes receivable. This condition may require an explanation from the credit department. Occasionally notes are received from customers who cannot make cash payments on account and, in that case, notes receivable would represent more or less delinquent accounts receivable. On the other hand, an increase in receivables may be the natural result of a material increase in the volume of sales rather than the result of delinquent collections.

3. Merchandise Inventory. Decreases in inventory are indicative of a healthy condition, but there is always a minimum below which stocks should not fall. A sufficient variety of sizes, qualities, and patterns is necessary to efficient operation. On the other hand, increasing inventory is often an indication of the piling up of unsalable merchandise—an undesirable situation. An ideal inventory may be determined and used as a standard for comparison with actual conditions.

FALBY HARDWARE COMPANY

COMPARATIVE BALANCE SHEET

December 31, 1939, and December 31, 1940

	Dec. 31, 1939	Dec. 31, 1940	Increase or Decrease* of 1940 over 1939	
			Dollars	Per Cent
CURRENT ASSETS:				
Cash	$ 9,000.00	$ 8,000.00	$ 1,000.00*	11.1*
Notes Receivable	2,000.00	12,000.00	10,000.00	500.0
Accounts Receivable	50,000.00	60,000.00	10,000.00	20.0
Merchandise Inventory	42,000.00	40,000.00	2,000.00*	4.8*
Total Current	$103,000.00	$120,000.00	$17,000.00	16.5
FIXED ASSETS:				
Land (cost)	$ 10,000.00	$ 20,000.00	$10,000.00	100.0
Building (cost)	$100,000.00	$100,000.00		
Less Reserve for Depreciation	2,600.00	5,200.00	$2,600.00	100.0
Depreciated Value	$ 97,400.00	$ 94,800.00	$ 2,600.00*	2.7*
Equipment (cost)	$ 30,000.00	$ 30,000.00		
Less Reserve for Depreciation	4,000.00	4,800.00	$ 800.00	20.0
Depreciated Value	$ 26,000.00	$ 25,200.00	$ 800.00*	3.1*
Total Fixed	$133,400.00	$140,000.00	$ 6,600.00	4.9
TOTAL ASSETS	$236,400.00	$260,000.00	$23,600.00	10.0
CURRENT LIABILITIES:				
Notes Payable	$ 6,000.00	$ 10,000.00	$ 4,000.00	66.6
Accounts Payable	32,000.00	30,000.00	2,000.00*	6.2*
Total Current	$ 38,000.00	$ 40,000.00	$2,000.00	5.3
FIXED LIABILITIES:				
Mortgage Payable	$ 50,000.00	$ 50,000.00		
TOTAL LIABILITIES	$ 88,000.00	$ 90,000.00	$ 2,000.00	2.3
NET WORTH:				
Total Assets	$236,400.00	$260,000.00	$23,600.00	10.0
Total Liabilities	88,000.00	90,000.00	2,000.00	2.3
Net Worth	$148,400.00	$170,000.00	$21,600.00	14.6

FIG. 3.

4. Fixed Assets. In general, increases in fixed assets should be offset by increases in fixed liabilities and net worth. To the extent that increases in fixed assets exceed increases in fixed liabilities and net worth, working capital will be decreased. This is undesirable in most cases. In other words, the acquisition of fixed assets should be financed through long-term borrowing or through the reinvestment of profits, and not through short-term borrowing.

5. Fixed Liabilities. Increases in fixed liabilities are accompanied by burdens of interest, and for that reason may be unfavorable indications. Decreases are generally considered favorable.

6. Net Worth. An increase in net worth is the result of profits or of additional investments by the owner or of both. The Falby Hardware Company's increase of $21,600.00 was due to a profit of $3,940.00 for the year and to an additional investment by Mr. Falby of $17,660.00. This information would be supplied by equations 2 and 3 and, of course, cannot be obtained from the comparative balance sheet.

7. Month to Month Comparisons. In the comparison of balance sheets from month to month, instead of from year to year, care must be exercised to allow for seasonal variations which are normal to most business enterprises. For example, in comparing the balance sheets of October 31, 1940, and November 30, 1940, an increase in inventory may be accepted as normal because of the custom and necessity of stocking up for Christmas trade. The comparison in this case should be between a normal increase and an abnormal increase. The same consideration must be given to changes in other items on the balance sheet.

8. Summary of Changes in Working Capital.[1] In 1940 the Falby Hardware Company earned a profit of $3,940.00, and the owner invested an additional $17,660.00. It is of interest to Mr. Falby, and others perhaps, to know what disposition was made of these funds, and a summary of changes in working capital will provide information of this nature.

The comparative balance sheet and equation 3 supply the information which is necessary to prepare this statement.

Working capital may be increased by:

1. Profits
2. Additional investments by the owner or owners.

[1] Suggested by Harry L. Kunze in "A New Form of Funds Statement." "The Accounting Review" (June, 1940).

3. Increase in fixed liabilities. (Funds obtained by borrowing on long-term note.)
4. Decrease in fixed assets. (Funds obtained by selling fixed assets.)

Working capital may be decreased by:

1. Losses
2. Withdrawals by the owner or owners.
3. Decrease in fixed liabilities.
4. Increase in fixed assets.

FALBY HARDWARE COMPANY

SUMMARY OF CHANGES IN WORKING CAPITAL

FOR THE YEAR ENDED DECEMBER 31, 1940

WORKING CAPITAL, JANUARY 1, 1940		$65,000.00
Increases:		
Profit	$ 3,940.00	
Additional Investments	17,660.00	21,600.00
		$86,600.00
Decreases:		
Increase in Fixed Assets		6,600.00
WORKING CAPITAL, DECEMBER 31, 1940		$80,000.00

FIG. 4.

General Comments on the Balance Sheet. It should be observed that while current assets are stated at their approximate cash equivalent, fixed assets are stated at historical cost less accrued depreciation. The amount at which fixed assets are stated may be considerably in excess of, or less than, market value (i.e., cash equivalent).

"Although the balance sheet presents the financial condition at the close of business on a given date, it does not present all the factors which should be taken into consideration in judging a business. Other factors not shown in the balance sheet may be as important, if not more important, than those shown. The general state of business, the phase of the business cycle, and the immediate outlook for the particular business under consideration may at the moment be extremely important considerations. Numerous concerns which presented favorable statements before the crash of the stock market and the decline in the general level of business in 1929 discovered that their condition was not sufficiently satisfactory to enable them to meet the crises ahead. The

possibility that the product of a concern may be superseded by a more modern product in the near future is an important factor. The state of affairs among the concern's customers, the possible passing of new tariff laws, new tax laws, or other types of public regulation, the state of health of the president of the concern or of certain important officers, the loyalty or disloyalty of the employees, possible future labor difficulties are exceedingly important considerations which an investigator must keep in mind in judging a business. The ability and previous success of the company's officers and board of directors are also worthy of consideration. The balance sheet is thus only one of the factors to be considered in determining the status of a business and the wise man will make an extended investigation before he draws conclusions."[1]

"Accountants have long recognized that financial statements have certain definite limitations despite their symmetry and balance, features which tend to convey an impression of exactness and finality. Events of recent years, however, have shown that the general public and even many bankers, lawyers, and financial analysts have been aware of these limitations in only a vague fashion. Lately, a perhaps unofficial campaign to educate the rank and file as to the limitations of statements has been evident in accounting and financial literature."[2]

QUESTIONS

1. Define a current asset. Point out that part of the definition which excludes store fixtures from the current classification.
2. Explain the difference between accounts receivable (trade) and accounts receivable (other).
3. How is the net worth as shown in the balance sheet determined, and what is the test of its correctness?
4. Why is it important to show the total current assets and total current liabilities on the balance sheet?
5. Should the balance sheet be compared to a snapshot or to a motion picture of the enterprise?
6. What is meant by a sale on account, and what is the title of the asset which is created by such a sale?
7. What is meant by "book value" in reference to fixed assets?
8. What causes fixed assets to depreciate?
9. What is the point of distinction between current and fixed liabilities?
10. Why is the working capital ratio an optimistic measure of the ability of an enterprise to pay its debts? Which ratio is not quite so optimistic in this respect?
11. What should be included in the heading of a balance sheet?
12. What is the general purpose of comparative balance sheets?
13. Is the balance sheet a statement of fact, of opinion, or of both?
14. The total of current and fixed assets on Carey Company's balance sheet at June 30, 1940, was \$160,000.00. Is this the market value of these assets on that date?

[1] Husband and Thomas, "Principles of Accounting," page 31. Houghton Mifflin Company (1935).

[2] M. B. Daniels in "Financial Statements." Published by the American Accounting Association as Monograph 2 (1939).

15. Prepare a summary of changes in working capital from the information shown below.

During the six months ended December 31, 1940, the net profit was $10,000.00 and the owners withdrew $2,000.00.

CAROCK COMPANY

CONDENSED COMPARATIVE BALANCE SHEET

JUNE 30, 1940, AND DECEMBER 31, 1940

	June 30	*December 31*
CURRENT ASSETS	$10,000.00	$15,000.00
FIXED ASSETS	42,000.00	82,000.00
Totals	$52,000.00	$97,000.00
CURRENT LIABILITIES	$ 5,000.00	$12,000.00
FIXED LIABILITIES	None	30,000.00
Totals	$ 5,000.00	$42,000.00
NET WORTH	$47,000.00	$55,000.00

16. Would you pay $100,000.00 for a business which, in the opinion of a reputable firm of certified public accountants, has a net worth of $100,000.00? Discuss.

CHAPTER III

THE PROFIT AND LOSS STATEMENT[1]

The profit and loss statement does not show a profit *and* a loss but rather a profit *or* a loss. Since the chief incentive of most privately owned enterprises is to make a profit, the profit and loss statement is designed to explain to the owner how the profit was made or why it was not made.

The Falby Hardware Company maintained adequate records of all transactions affecting profit as they occurred during the year ended December 31, 1940. From these records they prepared a profit and loss statement, Fig. 5, which is based on the following equation:

Equation 2—Year Ended December 31, 1940

(Sales) $128,000.00 − (Cost of goods sold) $89,760.00 − (Expenses) $34,300.00 = (Net profit) $3,940.00

Accrual Basis for Profit Determination. A sale on account made in December 1940, on the customer's promise that payment will be made in January 1941, should be included in the computation of profit for December. That is, profit or loss resulting from a sale on account is considered earned when the sale is made rather than when the cash is collected. This same principle applies to purchases on account. Legally a sale or purchase has been completed when title to the property involved has passed from the seller to the buyer.

In general, the profit of a period is affected by the expenses incurred in that period and not by the cash disbursed for expenses during that period. Expense is considered as incurred for the period in which the benefit is received. For example, a bill for light, heat, and water consumed in December 1940 may not be received and paid until January 1941. In that event the expense was incurred in December although payment of cash was made in January. A contract may be signed in September 1940 for advertising to be displayed during the months of October, November, and December, payment to be made in January, 1941. No expense was incurred in September, but expense

[1] The Committee on Accounting Procedure, American Institute of Accountants, uses the term "income statement."

FALBY HARDWARE COMPANY
Profit and Loss Statement
For the Year Ended December 31, 1940

Sales Section	Gross Sales			$128,800.00	100.62%
	Less: Sales Returns and Allowances			800.00	0.62%
	Net Sales			$128,000.00	100.00%
Cost of Goods Sold Section	Cost of Goods Sold				
	Inventory of Merchandise, January 1, 1940		$ 42,000.00		
	Gross Purchases	$87,060.00			
	Freight In on Purchases	2,000.00			
		$89,060.00			
	Purchase Returns and Allowances	1,300.00			
	Net Purchases		87,760.00		
	Cost of Merchandise Available for Sale		$129,760.00		
	Inventory of Merchandise, December 31, 1940		40,000.00	89,760.00	70.12
	Gross Profit			$ 38,240.00	29.88%
Operating Expense Section	Operating Expenses				
	Selling Expenses				
	Salesmen's Salaries	$ 7,000.00			
	Advertising Expense	5,000.00			
	Telephone and Telegraph	300.00			
	Sample Expense	1,200.00			
	Miscellaneous	2,500.00	$ 16,000.00		
	Administrative Expenses				
	Administrative Salaries	$12,000.00			
	Light, Heat, and Water	300.00			
	Depreciation Expense	3,400.00			
	Taxes	1,200.00			
	Insurance	1,100.00			
	Miscellaneous	60.00	18,060.00	34,060.00	26.61
	Operating Profit			$ 4,180.00	3.27%
Non-Operating Expense and Income Section	Non-Operating Expense and Income				
	Expense: Sales Discount	$ 100.00			
	Interest on Mortgage	250.00			
	Interest on Notes Payable	40.00	$ 390.00		
	Income: Purchase Discount	$ 110.00			
	Interest on Notes Receivable	40.00	150.00	240.00	0.19
	Net Profit			$ 3,940.00	3.08%

The designations of sections shown above are not a part of this statement.

Fig. 5.

would be charged to October, November, and December in proportion to the amount of advertising displayed in each month, respectively. January would incur no expense although the cash was disbursed in that month.

An enterprise which determines its profit in this manner is said to be on the accrual basis. The majority of enterprises must use this method to arrive at a reasonably correct profit figure.

Cash Basis for Profit Determination. The cash basis, better described as the receipt and disbursement method, does not consider a sale made until cash or its equivalent has been received. Similarly, purchases and expenses are charged to the period in which cash is disbursed. For example, light, heat, and water consumed in December 1940 and paid for in January 1941 would be considered an expense of January. This is obviously an incorrect procedure.

It is a common fallacy to regard the difference between cash receipts and disbursements as the profit or loss. The cash basis is generally unsatisfactory although it has a limited application in certain types of enterprises.[1]

EXPLANATION OF THE PROFIT AND LOSS STATEMENT

Sales Section. Gross sales include the total amount customers have paid or have agreed to pay for merchandise sold to them during the period. Only the sale of a commodity or service which is offered for sale regularly should be termed a sale.

A sales return is the opposite of a sale and is recorded when a customer returns the merchandise as unsatisfactory.

A sales allowance reduces the original selling price and is recorded when a customer requests, and is granted, a reduction in the selling price of the merchandise because of defects or errors to which he calls attention.

Net sales represent the net selling price of merchandise sold either for cash or on account after deducting returns and allowances. Theoretically, the net sales of a period cannot be determined until every customer has retained and used the merchandise sold to him to the extent that he would be restrained from returning it. The net sales of the Falby Hardware Company for 1940 may be less eventually because of further returns which may occur in January of 1941. But this is not given recognition in accepted accounting practice.

[1] Individuals may, and usually do, use the cash basis in arriving at net income subject to the federal income tax.

Merchandise sold in 1940 but returned in 1941 is treated as a sales return for 1941 and is deducted from the gross sales of 1941. This practice is justified by a counteracting effect from period to period which minimizes the possibility of a serious distortion of the profit for any one period.

Cost of Goods Sold Section. The computation of the cost of goods sold for any period is made in accordance with the following equation: [1]

Equation 2a—Year Ended December 1940

Inventory, beginning + Net purchases for period − Inventory, end = Cost of goods sold

Net purchases are determined in a manner similar to that used in the determination of net sales except that freight charges must be added to gross purchases before deducting purchase returns and allowances. It should be observed that the cost of goods sold does not include the expense of selling the goods.

Equation 2*a* may be illustrated as follows: Assume that a shoe merchant had 1,000 pairs of shoes on hand December 1, and during the month of December added to his stock by purchasing 2,000 pairs. At the end of the month, the inventory shows 500 pairs on hand. In the absence of theft or loss, he must have sold 2,500 pairs during the month, as shown by the following summary:

Inventory of shoes on December 1	1,000 pairs
Purchases of shoes in December	2,000 pairs
Shoes available for sale in December	3,000 pairs
Inventory of shoes on December 31	500 pairs
Shoes sold in December	2,500 pairs

If the same computation is made using the cost of shoes rather than the number of pairs, the resulting figure is the cost of the shoes sold in December:

Inventory of shoes, December 1	$ 3,000.00
Purchases of shoes in December	8,000.00
Cost of Shoes Available for Sale in December	$11,000.00
Inventory of shoes, December 31	1,700.00
Cost of Shoes Sold in December	$ 9,300.00

[1] The designation 2*a* is used, as this equation is a subdivision of equation 2.

Gross Profit. The difference between the net sales and the cost of the goods sold is the gross profit. It must be more than sufficient to allow for the deduction of all expenses if a profit is to be realized, and this must be considered in determining the selling price of merchandise. If an item cannot be sold at a price which produces the desired gross profit, it would be unwise to encourage its sale.[1]

Operating Expense Section. Operating expenses in a commercial business are the cost of commodities and services utilized or incurred in the normal operation of the business enterprise aside from the commodities acquired for resale. They are the regular and recurring costs of doing business, such as:

1. Salaries of sales clerks, office clerks, and executives.
2. Services rendered by various agencies in furnishing items, such as light, heat, water, advertising, telephone, and telegraph.
3. Supplies used, such as stationery, twine, wrapping paper, stamps, ink, and pencils.
4. Taxes and insurance on property owned.
5. Depreciation of fixed assets. It has been explained in Chapter II that a fixed asset is stated in the balance sheet at an amount which decreases from period to period. That decrease which is estimated to have taken place in any one period is termed the depreciation expense for that period.

Operating expenses are classed as selling and administrative. An expense which is incurred directly in the distribution of merchandise to customers is a selling expense. Other expenses of general operation are administrative. Quite frequently, expenses must be allocated between the two classifications. For example, in a large department store which occupies an eight-story building, one floor is used for the general office force including the credit department, the accounting department, and executive offices. The remaining seven floors are used by the sales departments. In this case expenses of insurance, taxes, and depreciation in respect to the building are allocated in the proportion of one-eighth to administrative and seven-eighths to selling.

Operating Profit. The difference between gross profit and operating expense is the operating profit. This is a particularly significant figure as it reveals the profit-making possibilities of the enterprise.

[1] A concept of a gross profit cannot be justified from the viewpoint of theory. Obviously, the cost of goods sold and operating expenses are recovered out of revenue simultaneously—one does not have priority over the other. As a practical matter, however, it appears that the determination of gross profit has certain advantages which justify its use in the statement of profit and loss.

Non-Operating Expense and Income Section.[1]

1. Non-Operating Expense. Expenses may be classed as non-operating because of their abnormal relation to operations. It is difficult to draw the line, but the following expenses usually are included in that class:

a. Sales Discount. Customers may be allowed certain deductions from the selling price of merchandise if they pay cash at the time of the sale or within a specified time limit. The terms of a sale may be expressed on an invoice as "2/10; 1/30; n/60." This is an abbreviation for "2% may be deducted from the selling price if cash is paid at the time of sale or within 10 days of that time; 1% only may be deducted if payment is made after the tenth day but before the thirty-first day; nothing may be deducted if payment is made after the thirty-first day and payment in full is to be made within 60 days." For example, if an article is marked to sell for $300.00, subject to the cash discounts assumed above, a customer may deduct $6.00 when paying for it within the 10-day period. This deduction of $6.00 is known as a sales discount. In one sense it represents a loss, inasmuch as this money is not received, which may be shown in the profit and loss statement as a non-operating expense (see Fig. 5).[2]

b. Interest Expense. Interest is considered non-operating on the assumption that a business may operate without interest expense.[3]

c. Unusual Non-Recurring Expenses. Losses resulting from fire, theft, or the sale of a fixed asset at less than its book value are shown as non-operating expenses.

2. Non-Operating Income. Income from the sale of merchandise is generally the sole operating income.[4] The following are examples of non-operating income:

[1] The terms "miscellaneous" and "extraneous" are frequently used in place of "non-operating."

[2] It is more logical in some cases to deduct sales discount from sales. In this usage, sales discount is considered to be merely an adjustment of the selling price. If all customers regularly take advantage of discounts offered and if the selling price has been determined in anticipation of these deductions, it is customary to deduct sales discounts from sales. On the other hand, if discounts are taken irregularly and if the selling price has not been determined with the discount in mind, it is customary to show sales discount as a non-operating expense.

[3] On the other hand, interest expense may be shown as an administrative expense. This conforms to the opinion that interest is normal to operations rather than abnormal. In reference to optional treatments which may be suggested, a choice must be made in consideration of the facts in any given case. The important thing is to be consistent from period to period and thus insure significant comparisons of gross and operating profits.

[4] The principal income of an enterprise is its operating income. For example, the regular business of a bank is to lend money rather than sell merchandise, and

a. Purchase Discount.[1] It is sometimes possible to obtain deductions from the purchase price of merchandise by making prompt payment. What is sales discount to the seller is purchase discount to the buyer. Purchase discount is shown as a non-operating income to offset sales discount.[2]

b. Interest Earned.[3] The possession of an interest-bearing note gives rise to this income.

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consequently the operating income of a bank is interest earned instead of sales. In certain enterprises the sale of a service, rather than merchandise, produces operating income.

[1] Sales discount and purchase discount should not be confused with trade discounts which are deductions from list prices as published in catalogues. One of the purposes of a trade discount is to effect a change in the price of an article without publishing a new catalogue. Its actual selling price may be changed at will by notifying customers of a change in the trade discount.

In the accounting records catalogue list prices and trade discount are ignored. The selling price is taken to be list price less trade discount. Sales discount and purchase discount, which are given for prompt payment of cash, are computed on the discount price after trade discount has been deducted.

[2] Purchase discount may be deducted from gross purchases in obtaining net purchases. This treatment should be adopted if it appears that the real cost is the net figure. It is the opinion of certain authorities that the treatment of sales discount and purchase discount should be consistent. That is, if purchase discount is deducted from purchases, then sales discount should be deducted from sales. Or if purchase discount is shown as a non-operating income then sales discount should be shown as a non-operating expense.

[3] Non-operating expenses such as interest expense and sales discount may be considered as financial expenses. Similarly non-operating incomes such as interest earned and purchase discount may be considered as financial incomes. An expense or an income may be termed financial when it is related to the maintenance of a supply of cash or to the financing of a business. If this financial classification is used, the non-operating section of the profit and loss statement will appear as follows:

Operating Profit			$4,180.00
Financial Expense and Income:			
Expense: Sales Discount	$100.00		
Interest Expense	290.00	$390.00	
Income: Purchase Discount	$110.00		
Interest Earned	40.00	150.00	240.00
Operating Profit after Financial Expense and Income			$3,940.00
Non-Operating Expense and Income:			
Expense: Loss on Sale of Truck		$ 800.00	
Income: Profit on Sale of Land		2,000.00	
Non-Operating Income, Net:			1,200.00
NET PROFIT			$5,140.00

c. Unusual or Non-Recurring Income. Any income other than sales, interest earned, or purchase discount is included in this classification. For example, a profit from the sale of fixed assets would be shown in the profit and loss statement as a non-operating income on the line below Interest on Notes Receivable (see Fig. 5).

ANALYSIS AND INTERPRETATION OF THE PROFIT AND LOSS STATEMENT

Percentage Analysis. The operating efficiency of an enterprise is indicated by a percentage analysis of the profit and loss statement. By designating the net sales as 100%, the percentage relation of each item in the statement is computed by dividing that item by the net sales and multiplying by 100%. These percentages should be shown in the statement, as illustrated in Fig. 5, page 32.

A percentage analysis is equivalent to reducing the net sales to one dollar and similarly reducing the other items proportionately. Consider the following:

	1939	1940
Net Sales	$100,000.00 = 100%	$90,000.00 = 100%
Cost of Goods Sold	60,000.00 = 60%	58,500.00 = 65%
Gross Profit	$ 40,000.00 = 40%	$31,500.00 = 35%
Operating Expenses	36,000.00 = 36%	27,000.00 = 30%
Operating Profit	$ 4,000.00 = 4%	$ 4,500.00 = 5%

It may be said that in 1939 each dollar of sales represented a return of 60 cents for cost of goods sold, 36 cents for operating expenses, and 4 cents for profit. In 1940 the cost of each dollar sale increased 5 cents, but operating expenses decreased 6 cents. Therefore, the operating profit on each dollar of sales increased one cent in 1940 over 1939. Comparison of this type is obtained by a percentage analysis of the statement based on net sales as 100%.

Operating Ratio. The relation of operating expense to net sales is known as the operating ratio. Other things being equal, it may be assumed that an enterprise which obtains a one-dollar sale by an expenditure of only 30 cents for operating expense is more efficient than one which must expend 36 cents for operating expense to obtain a similar sale.

Gross Profit Percentage. The gross profit percentage is the average rate of mark-up on merchandise. This rate is in relation to selling price and not cost. For example, to obtain a gross profit of

30% on an item costing $100.00 it is necessary to determine the selling price as follows:

Let $x =$ selling price.
Then 60% of x or $0.6x =$ gross profit.
And the selling price (x) — the cost ($100.00) = gross profit $(0.6x)$
Or $x - 0.6x = \$100.00$

$$\text{And } x = \frac{\$100.00}{0.4} = \underline{\underline{\$250.00}}.$$

When the cost is $100.00, selling price must be $250.00 to obtain a gross profit of 60%.[1]

Comparative Statements. A comparative statement, Fig. 6, shows the difference in amount of each item in the profit and loss statement for two successive years. Comparisons may be made also between a certain month of last year and the same month of this year; between consecutive months in the same year; between quarterly periods; or between semiannual periods.

BALANCE SHEET AND PROFIT AND LOSS RELATIONS[2]

The figures used in the following computations were obtained from the balance sheet, Fig. 1, on page 18; the comparative balance sheet, Fig. 3, on page 26; and the profit and loss statement, Fig. 5, on page 32.

Percentage of Operating Profit to Net Worth. Operating profit divided by net worth and multiplied by 100% results in a percentage which measures earning power from the owner's viewpoint. It is also an excellent measure of the operating efficiency of the enterprise.

$$\frac{\textit{(Operating profit) } \$4{,}180.00}{\textit{(Average net worth)}^{3}\ \$159{,}200.00} \times 100\% = \underline{\underline{2.63\%}} \textit{ per year}$$

[1] Problems of this type continually face the retailer. Knowing the cost of an article and the desired percentage of gross profit, he must determine its selling price. Or knowing the price at which an article can sell, he determines a maximum cost price which he can afford to pay in order to obtain the desired rate of mark-up.

[2] Dun and Bradstreet, Inc., publish a pamphlet which gives fourteen important ratios for 72 lines of business activity consisting of 36 divisions of manufacturing, 24 of wholesaling, and 12 of retailing. Time, Inc., prepares an index of business based on certain of these financial ratios and relations.

[3] Average net worth determined as follows:

Net worth, December 31, 1940	$148,400.00
Net worth, December 31, 1939	170,000.00
Total	$318,400.00

$$\text{Average net worth for year ended December 31, 1940} = \frac{\$318{,}400.00}{2} = \underline{\underline{\$159{,}200.00}}$$

"It is recognized that earnings of an enterprise for a single year, and still more so for shorter periods, are of limited significance, because they may be disproportionately affected by transitory influences. Fair conclusions as to earning power cannot be drawn without comparison of the profits over a period of years and consideration of a number of other factors which cannot be set forth in financial statements. Among these factors are the ability of the management and the effect of changes in technical processes, shifting markets, tariffs and taxation, on the plant, product and sales of the business. Any one of these human or physical or economic factors may throw the concern into difficulties or materially alter its financial condition and earning capacity."[1]

Percentage of Net Profit to Net Worth. Non-operating expenses and incomes may distort net profit, and consequently this percentage is not a dependable measure of the earning power. It does indicate, however, the actual percentage return to the owner on his investment.

$$\frac{\textit{(Net profit) \$3,940.00}}{\textit{(Average net worth) \$159,200.00}} \times 100\% = \underline{\underline{2.47\%}} \textit{ per year}$$

Rate of Merchandise Turnover.

"The number of times a stock of goods is sold out during a year is called the rate of merchandise turnover for the year. If a grocer should buy a new stock of goods on January 1, all of which were sold by March 1, and should then buy a new stock, all of which were sold by May 1 and so on every two months until the end of the year, he would turn his stock of merchandise six times a year and the rate of turnover of stock would be six. Obviously business houses cannot operate on this basis. They cannot dispose of their present stock completely before buying more. The buying and selling processes go on simultaneously. Under such conditions the calculation of the rate of turnover is slightly more difficult and naturally not as accurate as under the theoretical condition cited above. The rate of turnover of merchandise in a retail business is normally calculated by dividing the cost of goods sold by the average inventory taken at cost price."[2]

$$\frac{\textit{(Cost of goods sold) \$89,760.00}}{\textit{(Average inventory of merchandise) \$41,000.00}^{3}} = \underline{\underline{2.19}} \textit{ times per year}^{4}$$

[1] Examination of Financial Statements by Independent Public Accountants, American Institute of Accountants, January, 1936.

[2] Scovill and Moyer, "Fundamentals of Accounting," page 627.

[3] Average inventory of merchandise determined as follows:

Inventory, December 31, 1939	\$42,000.00
Inventory, December 31, 1940	40,000.00
Total	\$82,000.00

Average inventory for year ended December 31, 1940 $= \frac{\$82{,}000.00}{2} = \underline{\underline{\$41{,}000.00}}$

If an inventory of merchandise is determined at the end of each month, a yearly average may be computed by adding the inventory figures of the preceding

Other things being equal, a high turnover indicates successful operation. The turnover also indicates the rate at which merchandise is being converted into cash or receivables, and for this reason it should be considered in relation to the working capital ratio.

Percentage of Accounts Receivable (Trade) to Net Sales. The percentage relation of accounts receivable (trade) to net sales[1] provides a measure of the efficiency of the credit department. If collections become tardy this percentage will increase from period to period.

$$\frac{(\textit{Accounts receivable, trade})\ \$60{,}000.00}{(\textit{Net sales})\ \$128{,}000.00} \times 100\% = \underline{\underline{47\%}}$$

The percentage indicates that 47% of the year's net sales are as yet uncollected. This represents 5.6 months' sales (47% of 12 months).[2] The rate at which accounts receivable are collected is highly significant in relation to the working capital ratio. A working capital ratio of 2 to 1 may be quite adequate if current assets include receivables which will be converted into cash quickly and surely. On the other hand, a ratio of 4 to 1 may be inadequate if 60% of the current assets are receivables which have a slow rate of conversion into cash. In general, if the percentage of accounts receivable (trade) to net sales is low, a smaller working capital ratio is acceptable.

In most cases, notes receivable (trade) should be included in the numerator of the fraction, but accounts and notes receivable (other) should be excluded.

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eleven months to the present inventory figure and dividing this total by 12. A yearly average is preferable.

[4] According to the Harvard Bureau of Business Research, the turnover per year for six types of retail business averages as follows:

Jewelry	1.1	Shoes	1.8
Drugs	2.3	Groceries (retail)	8.3
Hardware	2.1	Groceries (wholesale)	5.2

[1] Theoretically, only net sales on account should be used, but if the proportion of cash sales to total sales remains fairly constant from year to year, the exclusion of cash sales is not necessary.

[2] To state, however, that 5.6 months' sales are uncollected necessitates the impractical assumption that monthly sales are uniform throughout the year. The fact may be that one-half of the total yearly sales were made in the month just ended. The percentage relation as computed above does not accurately measure the age of accounts receivable. Accounts may be accurately aged only by analyzing each customer's balance and segregating, on a columnar sheet of paper, those amounts not due, 1 to 30 days past due, 31 to 60 days past due, 61 to 90 days past due, 91 days to 6 months past due, and over 6 months past due, respectively. The age classifications employed would not always be those indicated here, of course.

FALBY HARDWARE COMPANY

CONDENSED COMPARATIVE PROFIT AND LOSS STATEMENT

FOR THE YEARS ENDED DECEMBER 31, 1939, AND 1940

	Dollars			Percentage		
	1939	1940	Increase or Decrease * 1940 over 1939	1939	1940	Increase or Decrease * 1940 over 1939
Gross Sales	$130,000.00	$128,800.00	$1,200.00*	100.77%	100.62%	0.15% *
Sales Returns and Allowances	1,000.00	800.00	200.00*	.77	0.62	0.15*
Net Sales	$129,000.00	$128,000.00	$1,000.00*	100.00%	100.00%	——%
Cost of Goods Sold	85,140.00	89,760.00	4,620.00	66.00	70.12	4.12
Gross Profit	$ 43,860.00	$ 38,240.00	$5,620.00*	34.00%	29.88%	4.12% *
Operating Expenses	38,400.00	34,060.00	4,340.00*	29.76	26.61	3.15*
Operating Profit	$ 5,460.00	$ 4,180.00	$1,280.00*	4.24%	3.27%	0.97% *
Non-Operating Expense and Income, Net	2,000.00	240.00	1,760.00*	1.56	0.19	1.37*
Net Profit	$ 3,460.00	$ 3,940.00	$480.00	2.68%	3.08%	0.40%

FIG. 6.

QUESTIONS

1. The Eagle Company made a net profit of $3,000.00 during the month of January 1934, but it is evident from an inspection of the statements that:

a. There was less cash on hand and in banks on January 31 than on January 1.
b. The total assets were less on January 31 than on January 1.
c. The net worth was less on January 31 than on January 1.

In view of the profit which was made, explain how each and all of the above conditions might be possible.

2. What is meant by the accrual basis?

3. What is the purpose of the profit and loss statement?

4. Do the expenses of a period have any necessary relation to the cash disbursements made in that period?

5. Is any distinction made between cash sales and sales on account in the profit and loss statement?

6. What is the difference between a sales return and a sales allowance?

7. From the following data compute the cost of the goods sold in January:

Purchases	$50,000.00
Freight on Purchases (freight-in)	4,000.00
Purchase Returns	3,000.00
Purchase Allowances	500.00
Inventory of Merchandise, January 1	12,000.00
Inventory of Merchandise, January 31	8,000.00

8. What is deducted from net sales to obtain gross profit?

9. Name at least ten expenses which any retail enterprise probably would incur.

10. What are trade discounts, and how are they shown if at all on the profit and loss statement?

11. State three ways of showing sales discount in the profit and loss statement.

12. Name the four sections of the profit and loss statement.

13. What is another term for non-operating expense?

14. What is meant by financial income and expense? Name the types of income and expense generally included in that classification.

15. A grocer sells his old safe for $50.00 which was valued in his accounting records at $75.00. What type of expense does this transaction create, and how is it shown on the profit and loss statement?

16. What are the two classes of operating expenses?

17. In a percentage analysis of the profit and loss statement what represents 100%?

18. The Eagle Company made an operating profit of $3,000.00 in January 1934 and $6,000.00 in February 1934. How could this represent a percentage decrease in operating profit for February?

19. a. What percentage relation reveals the condition of collections in respect to accounts receivable? How is it computed?

b. Compute the rate of merchandise turnover from the following facts covering one year's operations:

Net Sales	$40,000.00
Inventory of Merchandise, January 1, 1933	12,000.00
Purchases	30,000.00
Inventory of Merchandise, December 31, 1933	8,000.00

c. What percentage relation measures the earning power of the enterprise from the owner's point of view?

d. How do you determine percentage return to the owner on his investment?

20. For each dollar of sales the Martin Company expends approximately 28 cents for operating expenses. It desires an operating profit of 5 cents for each dollar of sales. What selling price should be assigned to an item of their merchandise which cost $50.00?

CHAPTER IV

THE STATEMENT OF CHANGE IN NET WORTH

Meaning of Net Worth. Net worth is the difference between total assets and total liabilities. It is not the price at which the enterprise could or should be sold as a going concern, for that price is affected by earning power and other factors. The *worth* of a business as a going concern may be approximated by capitalizing the earnings or profits. For example:

Assume:	Net worth	$100,000.00
	Average yearly profit	40,000.00
	Normal return on investment	10% annually

Computation of capitalized earnings:

Let	x = capitalized earnings
Then 10% of	x = $ 40,000.00
And	x = $400.000.00.

The prospective purchaser of a business who considers 10% to be a satisfactory return on investment could afford to pay $400,000.00 for a business which will earn $40,000.00 each year. It should be observed that the capitalized earnings of $400,000.00 is computed without regard to the net worth figure. The profits which are capitalized should be the estimated yearly average of *expected future earnings.* The estimate may be made after inspecting profits of past years, giving due consideration to the effects of a change in ownership, the trend of local and national business conditions, and to other pertinent factors which might affect future earnings. In the last analysis, however, the price at which a business is sold probably will be determined by a bargaining process. Even though it is agreed to determine the price by capitalizing earnings, it is quite probable that the seller and buyer will have different concepts of the future earning power of the business and also of the normal percentage return on investment.

There are other factors, in addition to that of earning power, which might affect the price at which a concern could be sold. In one instance, a company had paid $10,000.00 for its factory site and the

asset land was carried at cost in its balance sheet from year to year. After many years of rather unsuccessful operations, the business was sold at a figure greatly in excess of net worth or capitalized earning power simply because the land had, at that time, a value of approximately $1,000,000.00.

It is important to realize that net worth does not reflect the value or real worth of the enterprise, as a going concern or in liquidation, and it is perhaps unfortunate that the term net worth ever found its way into the balance sheet. As previously explained, so-called net worth is the original investment of the owner augmented by additional investment or profits and reduced by withdrawals or losses. Hence, the designation net investment would be more appropriate perhaps than net worth. The term net assets (assets minus liabilities) is frequently use in place of net worth.

However, the term net worth is firmly established at present in accounting terminology and it will continue to be used in this text.

EXPLANATION OF STATEMENT OF CHANGE IN NET WORTH

Single Proprietorship. The statement of change in net worth is illustrated in Fig. 7. It is merely a formal presentation of the computation which is made in equation 3.

FALBY HARDWARE COMPANY
STATEMENT OF CHANGE IN NET WORTH
JANUARY 1, 1940, TO DECEMBER 31, 1940

Net Worth, January 1, 1940	$148,400.00
Profit for 1940	3,940.00
Additional Investments in 1940	17,660.00
	$170,000.00
Less Withdrawals in 1940	None
Net Worth, December 31, 1940	$170,000.00

FIG. 7.

Partnership. The title of the statement is changed and columns are added to show the computation for each partner, Fig. 8. Other-

wise this statement is identical with that of the single proprietorship.

A partnership balance sheet is illustrated in Fig. 9. Each partner's

SMITH, JONES, AND ADAMS

STATEMENT OF PARTNERS' CAPITALS

JANUARY 1, 1940, TO DECEMBER 31, 1940

	Smith	Jones	Adams	Total
Net Worth, January 1, 1940....	$12,000.00	$ 8,000.00	$16,000.00	$36,000.00
Profit for 1940................	5,000.00	2,500.00	2,500.00	10,000.00
Additional Investments in 1940..	1,000.00	4,000.00	None	5,000.00
	$18,000.00	$14,500.00	$18,500.00	$51,000.00
Less Withdrawals in 1940....	2,000.00	1,500.00	3,000.00	6,500.00
Net Worth, December 31, 1940..	$16,000.00	$13,000.00	$15,500.00	$44,500.00

FIG. 8.

SMITH, JONES, AND ADAMS

BALANCE SHEET, DECEMBER 31, 1940

ASSETS			LIABILITIES		
Current Assets:			*Current Liabilities:*		
Cash...........	$ 1,000.00				
Accounts Receivable....	12,000.00		Accounts Payable.......	$ 2,000.00	
Merchandise.....	13,000.00		Notes Payable...	6,000.00	
		$26,000.00			$ 8,000.00
			NET WORTH		
Fixed Assets:			*Capital:*		
Building........	$29,000.00		Smith...........	$16,000.00	
Less Reserve for Depreciation.......	2,500.00		Jones...........	13,000.00	
			Adams..........	15,500.00	
		26,500.00			44,500.00
Total Assets......		$52,500.00	Total Liabilities and Net Worth...		$52,500.00

FIG. 9.

share in net worth, as shown in the balance sheet, may be obtained from the statement of partners' capital. (See last line of Fig. 8.)

Corporation. The corporation is owned by stockholders, and their equity in the assets is represented by capital stock and surplus. The name of the owner of a single proprietorship or the name of each partner appears in the net worth section of the balance sheet, but the owners of a corporation are usually so numerous that it would be impractical to list their names on the corporate balance sheet.

The net worth of any business is obtained by equation 1 irrespective of the type of ownership, but in the corporate form this net worth figure is divided between the two items of capital stock and surplus. Thus, equation 1 for the corporation appears as follows:

Assets − Liabilities = Net Worth
or
Assets − Liabilities = Capital Stock + Surplus

1. Capital Stock. The charter of a corporation authorizes the issue of a stated number of shares of stock. The par value of each share is stated in the charter.[1] If the charter authorizes an issue of 1,000 shares with a par value of $100.00 each, the authorized capital stock is $100,000.00 As it is customary to obtain an authorization in excess of the immediate need, only a portion of the authorized stock might be sold when the corporation is organized or begins business. Thus, if only 60% of the total authorization of 1,000 shares is sold, then the issued capital stock is $60,000.00.[2] The remaining portion of the authorization, amounting to $40,000.00, is unissued capital stock. These facts relative to capital stock may be shown in the balance sheet as illustrated in Fig. 10. It should be observed that it is the issued stock which is added to surplus to obtain net worth.

Stock is not always issued at par. If stock is issued for more than par it is issued at a premium. If stock is issued for less than par it is issued at a discount. Irrespective of the price at which stock is sold, its par value is shown in the balance sheet, and the premium or discount may be added or deducted therefrom to obtain the amount actually paid in.

a. Example of Stock Issued at a Premium. Assume that a corporation has an authorization of 1,000 shares with a par value of $100.00 per share. It begins business by selling 600 shares for $110.00

[1] Discussion of no-par value stock is postponed to later chapters.

[2] The amount of authorization may be increased by application to the state which issued the charter. At no time, however, should the amount of issued stock exceed the amount of authorized stock.

SIDWELL DAIRY COMPANY

BALANCE SHEET

DECEMBER 31, 1940

ASSETS

Current:		
Cash	$ 5,000.00	
Accounts Receivable	3,000.00	
Inventory	12,000.00	$20,000.00
Fixed:		
Building and Equipment	$90,000.00	
Less Depreciation	20,000.00	$70,000.00
Total Assets		$90,000.00

LIABILITIES

Current:			
Accounts Payable		$16,000.00	
Notes Payable		2,000.00	
			$18,000.00
NET WORTH			
Capital Stock, par $100.00:			
Authorized—1,000 shares	$100,000.00		
Unissued — 400 shares	40,000.00		
Issued — 600 shares		$60,000.00	
Earned Surplus		12,000.00	
			72,000.00
Total Liabilities and Net Worth			$90,000.00

FIG. 10.

a share. Immediately thereafter the balance sheet would appear as follows:

BALANCE SHEET

Cash (600 shares @ $110.00 each)	$66,000.00	Liabilities		None
		Net Worth:		
		Capital Stock, par value $100.00:		
		Authorized	$100,000.00	
		Unissued	40,000.00	
		Issued	$ 60,000.00	
		Premium	6,000.00	
		Paid in		$66,000.00
Total Assets	$66,000.00	Total Liabilities and Net Worth		$66,000.00

b. Example of Stock Issued at a Discount. Assume the same facts as in *a* except that the stock is issued at $90.00 a share. Immediately thereafter the balance sheet would appear as follows:

BALANCE SHEET

Cash (600 shares @ $90.00 each)	$54,000.00	Liabilities		None
		Net Worth:		
		Capital Stock, par value $100.00:		
		Authorized	$100,000.00	
		Unissued	40,000.00	
		Issued	$ 60,000.00	
		Discount	6,000.00	
		Paid in		$54,000.00
Total Assets	$54,000.00	Total Liabilities and Net Worth		$54,000.00

When stockholders purchase stock, the transaction is similar to an original investment as made by the owner of a single proprietorship or by the partners of a partnership. That is, assets and net worth are increased.

Investments in the capital stock of a corporation are evidenced by stock certificates. Blank stock certificates are bound in books with stubs like check books. Blank certificates may be made for one share or for many shares, just as a check may be written for one dollar or for many dollars.

The illustrated certificate, Fig. 11, is still attached to its stub, but it has been filled out for issuance to Henry Smith as evidence of his investment in the Sidwell Dairy Company. This certificate has been signed and is ready to be detached, stamped with the corporation's seal, and given to Smith. The stub, which will remain in the certificate book, shows the essential facts about the certificate. Smith will sign his name on the stub when he receives his certificate.

If 600 shares are issued and a certain stockholder owns 200 of these shares, his equity in the corporation is determined by taking one-third $\left(\frac{200}{600}\right)$ of the corporation's net worth. Thus it may be possible for any stockholder to determine his equity by inspecting the balance sheet.

If Henry Smith continues to own 200 shares on December 31, 1940, his equity in the net worth of the Sidwell Dairy Company at that date would be one-third of $72,000.00, or $24,000.00. This is the book value of two hundred shares at that date, and the book value of one share is, of course, $120.00. It should be recognized, however, that book value does not reflect market value. The market value of a share of stock is affected by earning power and other factors. If the Sidwell Dairy Company is earning, on the average, $2,400.00 each year, the annual average earnings per share would be $4.00 $\left(\frac{\$2{,}400.00}{600 \text{ shares}}\right)$. A prospective purchaser of this stock in the open market who desires a return of 10% for this type of investment could pay only $40.00 per share for the stock, irrespective of its book value. On the other hand, if a 2% return is considered to be adequate, the prospective purchaser could pay $200.00 per share. It is apparent that the market value of a share of stock depends on subjective evaluations by the buyer and seller, which in turn are affected by the past and estimated future earning power of the corporation. Furthermore, where stock is purchased and sold through organized stock exchanges, the artificial effects of speculatory activities are sometimes an important factor in determining market price.

The par value of a share of stock is only the nominal value which may be assigned to each share by the corporation's charter and printed

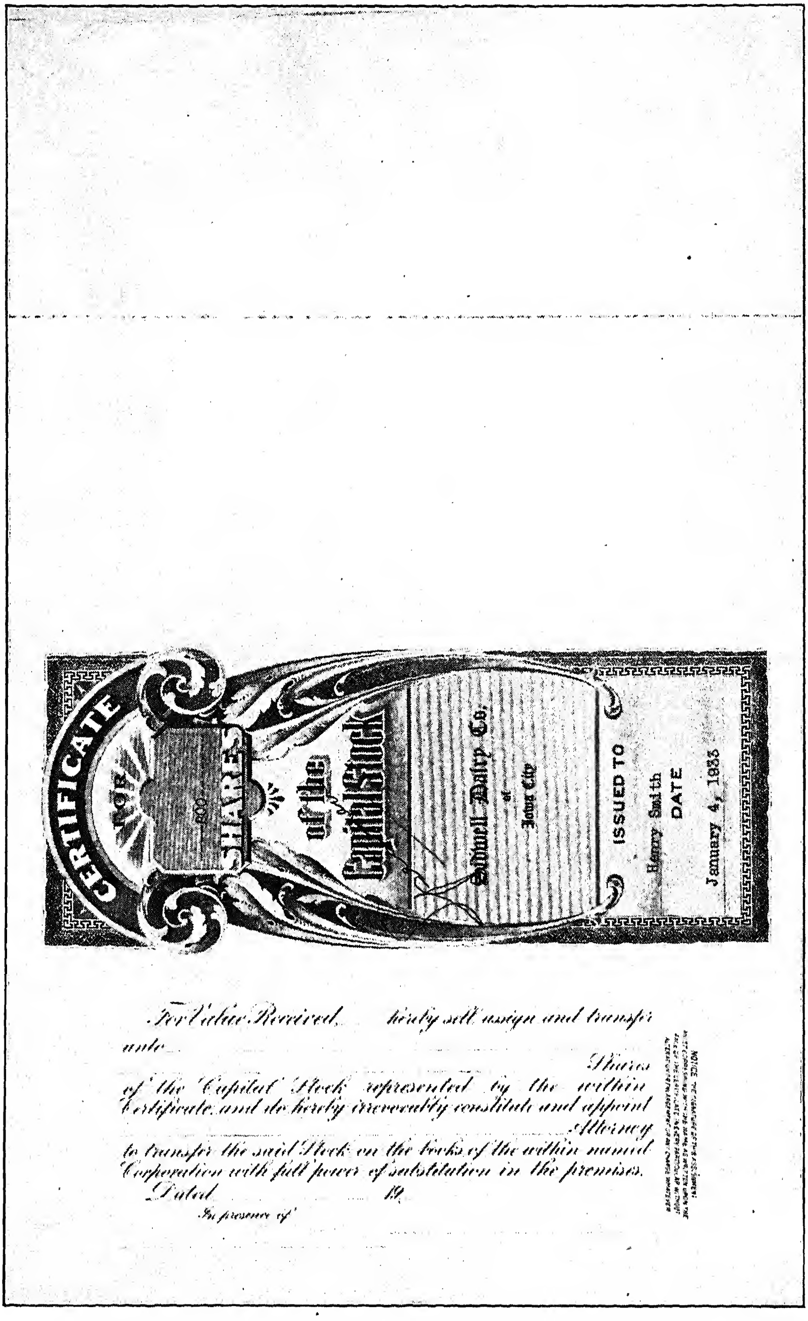
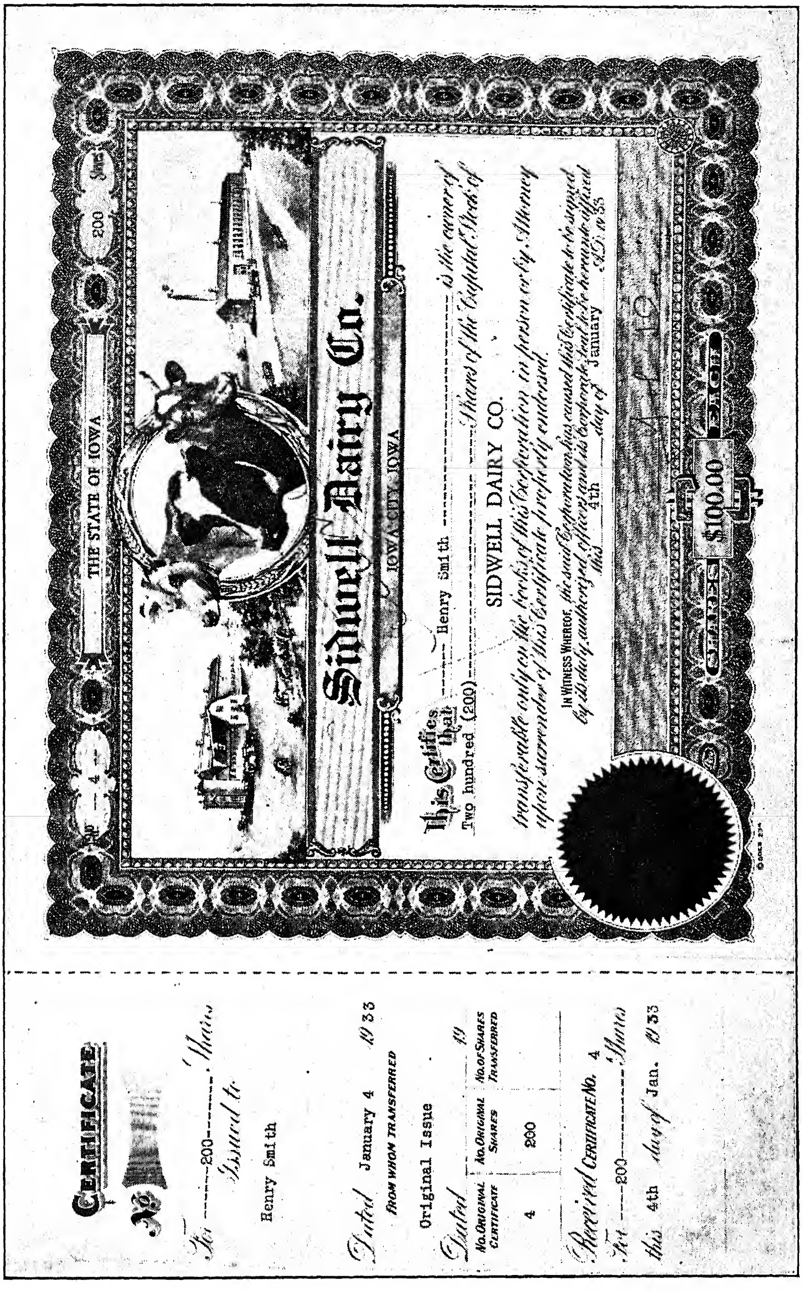

CERTIFICATE
FOR
600
SHARES
of the
Capital Stock
Dairy Co.
of
Iowa City
ISSUED TO
Henry Smith
DATE
January 4,
For Value Received, hereby sell assign and transfer
unto
Shares
of the Capital Stock represented by the within
Certificate, and do hereby irrevocably constitute and appoint
Attorney
to transfer the said Stock on the books of the within named
Corporation with full power of substitution in the premises.
Dated 19
In presence of

Fig. 11.



No. 4 THE STATE OF IOWA 200 Shares

Sidwell Dairy Co.

IOWA CITY, IOWA

This Certifies that Henry Smith is the owner of Two hundred (200) Shares of the Capital Stock of

SIDWELL DAIRY CO.

transferable only on the books of this Corporation in person or by Attorney upon surrender of this Certificate properly endorsed.

In Witness Whereof, the said Corporation has caused this Certificate to be signed by its duly authorized officers and its Corporate Seal to be hereunto affixed this 4th day of January A.D. 1933

$100.00

Certificate No. 4

For 200 Shares

Issued to Henry Smith

Dated January 4 1933

From whom transferred

Original Issue

Dated 19

No. Original Certificate	No. Original Shares	No. of Shares Transferred
4	200	

Received Certificate No. 4

For 200 Shares

this 4th day of Jan. 1933

FIG. 11.

on the stock certificate. (The par value of the certificate for 200 shares, illustrated in Fig. 11, is $20,000.00.) Par value is generally $100.00 a share, although it may be any other amount within certain limits as imposed by the various state statutes. Par value is used as a basis for dividend declarations, the dividend being declared as a certain percentage of the par value; i.e., a 6% dividend on par $100.00 stock is $6.00, but on par $50.00 stock it is only $3.00. Par value is also the minimum amount which creditors of the corporation may assume was paid to the corporation by stockholders when the stock was first issued. If, at any time, creditors' claims cannot be satisfied out of existing corporate assets, stockholders may be required, in certain situations, to pay in the amount of discount at which the stock may have been originally issued. In some states, however, stock may not be issued at less than par value and, in these cases, stock discount never exists.

It is important to realize that stock may have several so-called values, such as par value, book value, market value, redemption value, and liquidation value. When speaking of the value of stock, it is advisable to be explicit concerning the particular value which is intended.

2. Surplus. Surplus may be defined as the difference between net worth and the stated amount of capital stock. A corporation with total assets of $300,000.00 and total liabilities of $120,000.00 has a net worth of $180,000.00 as determined by equation 1. If the capital stock is stated at $100,000.00, then surplus is $80,000.00.

Surplus may be created in various ways and it is important to disclose its source. Three broad classifications by source are recognized by accountants although there is, at present, some slight disagreement concerning the extent and nature of such classification. These three sources are: (*a*) earned surplus, (*b*) paid-in surplus, and (*c*) surplus from revaluation or appraisal of assets.

a. Earned surplus is created by realized profits including both operating and so-called non-operating items. It will be remembered that a gain or loss on the disposition of fixed assets was included as a non-operating item in the statement of profit and loss and hence is to be included in earned surplus.

b. Paid-in surplus (or capital surplus) is realized principally in one of four ways as described below:

(1) A corporation may have 1,000 shares of par $100.00 stock outstanding and, after proper approval, may call in these 1,000 shares and issue in their stead 1,000 shares of par $50.00 stock. This is known as a restatement of the capital stock. The stated amount of

capital stock is reduced from $100,000.00 to $50,000.00 by such action, although the number of shares issued remains the same and the status of stockholders is not affected necessarily. The amount of net worth does not change because total assets and total liabilities remain the same. This means that the reduction in the amount of capital stock must be offset by an equal increase in the amount of surplus. This amounts to a transfer of $50,000.00 from capital stock to surplus. Such a surplus has been paid in by stockholders and has not been earned through profits.

(2) Corporations receive donated assets at times. Certain stockholders holding large blocks of stock may wish to improve the financial position of their corporation and do so by donating cash or other assets. Cities have induced some corporations to locate in their communities by donating factory sites. Since total assets are increased without affecting total liabilities, it is apparent that net worth is increased by the amount of the contribution. But the stated amount of capital stock is not affected and hence the increase in net worth is reflected in surplus. Surplus from this source is sometimes termed donated surplus rather than paid-in surplus.[1] This would create a fourth class of surplus as distinguished from the three sources which were mentioned previously.

(3) Premium on stock is sometimes included in the surplus section of net worth instead of being added to the par value of stock to obtain the amount paid in.

(4) A corporation, at times, buys and sells its own stock just as it would buy and sell the stock of another corporation. If a corporation buys 100 shares of its own stock in the open market for $80.00 per share and then sells it for $90.00 per share, it increases its assets by $1,000.00. This increase is reflected in surplus, necessarily, but it is considered to be paid-in surplus rather than earned surplus. In general, any surplus created by a corporation through dealings in its own stock is paid-in surplus because stockholders, as a class, have made the contribution.

c. Surplus from revaluation (or appraisal) of assets is unrealized as opposed to earned and paid-in surplus which are realized. A discussion of unrealized surplus is postponed until later chapters.

Surplus may be decreased in various ways. Earned surplus is decreased, of course, by operating losses and by withdrawals of profit in the form of dividends to stockholders. If earned surplus becomes

[1] Donated surplus may have a special legal status for purposes of distribution to stockholders in the form of dividends.

negative, it is termed an operating deficit, but in no case should an operating deficit be directly created by a dividend. Paid-in surplus may be decreased by dividends in those states which do not prohibit the payment of a dividend from this type of surplus. Paid-in surplus should not be transferred to earned surplus except under conditions approximating a reorganization. In that situation it is apparently acceptable to transfer paid-in surplus to eliminate an operating deficit. The reduction of surplus from revaluation is explained in a later chapter.

3. Dividends. Legally, at least, the owner of a single proprietorship may make withdrawals when he pleases and in any amount. Partners limit their withdrawals by mutual agreement, but ordinarily each partner may withdraw his share of the profits without restriction. Stockholders of a corporation do not have such privileges. As owners they receive their share of the corporation's profit in the form of dividend payments only when authorized by the board of directors.[1] In other words, it is the directors and not the owners who control withdrawals. Dividends may be defined as authorized withdrawals made by the owners of a corporation.

As an illustration of the typical procedure which is followed in respect to dividends, it may be assumed that the X Corporation has issued capital stock amounting to $100,000.00 and has an earned surplus of $30,000.00. The board of directors declares a cash dividend of 4% on January 10 to stockholders of record February 1, payable on February 15. In other words, they authorize a dividend payment to the stockholders of $4,000.00 (4% of the issued capital stock). Those persons owning stock on February 1, according to the records of the corporation, will receive their dividends on February 15.

Declaration of the cash dividend on January 10 immediately decreases earned surplus and increases current liabilities. Between the date of declaration and the date of payment, the declared dividend is treated as a current liability, for it is an obligation which must be paid out of current assets. Payment of the dividend on February 15 will decrease the asset cash and also decrease the current liability dividends payable.

Dividends should not be declared when such declaration would create an operating deficit. In fact, such a procedure is illegal in most

[1] Of course, directors are elected by the stockholders and in many instances directors own a majority of the stock. In a few cases minority stockholders have gone into court in an attempt to force the directors to declare a dividend, but such attempts have been generally unsuccessful.

jurisdictions. It is important also to consider the effect of cash dividends on working capital. Surplus may be sufficient, but if there is not sufficient cash with which to make payment, it may be necessary to omit the dividend.

4. Classes of Stock. The two principal classes of stock are common and preferred. All stock is common stock unless more than one kind or class is authorized, in which case the other class has some kind of a preference over the common and is designated as preferred stock. Such stock is usually preferred:

(1) As to dividends, in which case it may be:

- (a) Cumulative or non-cumulative
- (b) Participating or non-participating

(2) As to assets in the event of liquidation.

Stock which is preferred as to dividends entitles its holders to a dividend of a stipulated rate such as 6% before any dividends are paid on the common stock. If preferred stock is cumulative, any dividends passed and not paid in any year become a lien against profits of future years, all unpaid dividends in arrears having to be paid to preferred stockholders before any dividends can be paid on common stock.[1] If preferred stock is non-cumulative a dividend lost in one year is lost forever. Preferred stock which is participating shares with the common stock in any dividend after common has received dividends at the preference rate. That is, if the preferred stock is entitled to 6% and if both the preferred and common have received 6%, an additional payment of 3% to the common would require a payment of 3% to the preferred if the participation is to be equal. In many cases, however, the participation is in some other proportion. Thus, after each has received 6%, the preferred may be entitled to secure an additional 1% for each additional 2% paid to common. If preferred stock is non-participating, it receives its preferred rate of dividend and no more, regardless of the rate paid to common stock. Stock which

[1] Seven per cent cumulative preferred stock on which no dividends have been declared for three years will be entitled to receive a 21% dividend before the common stockholders may receive any share of profits. The fact that stock is preferred does not guarantee that the dividend will be paid. Dividends can be paid only out of profits, and if profits are not earned the stockholders cannot expect dividends. Preferred stock merely assures the holder that he will receive his preference rate before the common stockholder receives any dividend.

is preferred as to assets entitles its holders to payment in liquidation before any payments are made to common stockholders.[2]

In general, common stockholders have voting rights whereas preferred stockholders have no voice in the management. Where more than one class of stock has been issued, the amount of stock authorized, unissued and issued, for each class must be shown in the balance sheet.

The net worth section of a corporate balance sheet, shown below, illustrates one acceptable method of showing the pertinent facts concerning capital stock and surplus.

Net Worth

Capital Stock:			
6% Preferred; par $100.00; cumulative and non-participating; 1,000 shares authorized: Issued—800 shares	$80,000.00		
Common; par $50.00; 1,000 shares authorized: Issued—1,000 shares	50,000.00	$130,000.00	
Surplus:			
Earned	$16,000.00		
Paid-in (including premium on preferred stock of $22,000.00)	24,000.00	40,000.00	
Total Net Worth			$170,000.00

5. Changes in the Net Worth of a Corporation. A change in either the stated amount of capital stock or surplus may effect a change in net worth. Changes in the stated amount of capital stock are infrequent and, in any case, it is not customary to prepare a statement accounting for them. In the corporate enterprise, a statement of surplus takes the place of a statement of change in net worth. This statement must be divided into as many sections as there are classes of surplus, each section showing the amount of that class of surplus at the beginning of the period, the nature of additions and deductions which occurred during the period, and the amount at the end of the period. These final amounts are shown in the balance sheet prepared at the end of the period.

It should be observed that a statement of surplus does not necessarily account for the entire change in net worth. If net worth is in-

[2] Adapted from Finney, "Principles of Accounting," Chapter VII, page 10. Prentice-Hall (1928).

creased by an additional issue of stock, this increase would be reflected in the balance sheet and not in the statement of surplus.

X CORPORATION

STATEMENT OF SURPLUS

YEAR ENDED DECEMBER 31, 1940

Earned Surplus		
Balance, January 1, 1940		$12,000.00
Profit for 1940		8,000.00
Total		$20,000.00
Dividends on Common Stock:		
No. 20, January 10, 1940	$2,000.00	
No. 21, July 10, 1940	2,000.00	4,000.00
Balance, December 31, 1940		$16,000.00
Paid-In Surplus		
Balance, January 1, 1940		$ 2,000.00
Premium on issue of preferred stock December 20, 1940		22,000.00
Balance, December 31, 1940		$24,000.00

FIG. 12.

Summary of Chapters II, III, and IV. The net worth section of a balance sheet varies with the type of ownership. Otherwise this statement is the same in principle for a single proprietorship, a partnership, and a corporation. The profit and loss statement is not affected by type of ownership, but it will vary with the nature of operation. Chapter III describes the form which is used by a retail enterprise. Later chapters introduce variations caused by the manufacturing process. In a single proprietorship, changes in net worth are shown in the statement of change in net worth; in a partnership, the statement of partners' capitals performs this function; in a corporation, the statement of surplus accounts for net worth changes are reflected in surplus only. A later chapter expands the discussion of corporations.

QUESTIONS

1. The Candybar Company is owned by Mr. Harvey. On December 31, 1931, the net worth was $310,000.00. On January 10, 1932, Mr. Harvey invested an additional $50,000.00 with the intention of enlarging his business. At various times during 1932 Mr. Harvey withdrew cash for personal use, and at the end of the year these withdrawals totalled $8,000.00. The profit for 1932, as determined in the profit and loss statement, was $12,000.00. Prepare a statement of change in net worth for 1932.

2. Explain the difference between a statement of change in net worth and a statement of partners' capitals.

3. In preparing a partnership balance sheet the equity of each partner must be shown in the net worth section. Where can this information be obtained?

4. The net worth of a corporation increased from $200,000.00 to $270,000.00 during 1932. On January 1, 1932, the earned surplus was $50,000.00, but on December 31, 1932, it was $20,000.00. Explain how the net worth was increased, assuming that there was no other class of surplus. Is this increase shown in the statement of surplus?

5. One thousand shares of stock with a par value of $100.00 are sold for $110.00 a share. How would this transaction affect the balance sheet?

6. The Chandler Corporation has a net worth of $400,000.00. If you own 100 shares of the 2,000 which have been issued, what is your equity in the corporation? What is the market value of your shares?

7. How may earned surplus be created or increased?

8. How may earned surplus be decreased or an operating deficit created?

9. What is the essential difference between a withdrawal of profits by the owner of a single proprietorship and the withdrawal of profits by the owners of a corporation?

10. In the financial section of a newspaper the following notice appeared: "The directors of the Mammoth Corporation declared a 2% dividend on January 12, 1934, as of record February 1, 1934, payable March 1, 1934." Explain the meaning of this notice. If a balance sheet is prepared for the Mammoth Corporation on February 28, 1934, what would reflect the directors' action? What would determine the amount of the dividend?

11. What assurance does the holder of a share of 7% preferred cumulative non-participating stock have in respect to dividends?

12. The Carson Corporation has total assets of $1,500,000.00 and total liabilities of $600,000.00. There are 10,000 shares of par $100.00 common stock outstanding so that the balance sheet shows a deficit (negative surplus) of $100,000.00.

a. How might this deficit be converted into a surplus by proper legal action?
b. How would stockholders be affected by such action?

13. A condensed balance sheet of the Carnuck Company on December 31, 1940, is shown on page 61. Assume (1) that current assets are stated at approximately market value; (2) that fixed assets are stated at a reasonable book value in view of their future useful life; and (3) that all liabilities are fully stated.

Assume also that certified public accountants have given their opinion that the balance sheet and the profit figures fairly present the financial condition on December 31, 1940, and the results of operations for the past five years based on accepted principles of accounting consistently applied.

The Carnuck Company is about to be sold as a going concern. What factors would enter into the determination of the selling price and what figure would you suggest as being reasonable to both buyer and seller?

14. Assume that the Carnuck Company (question 13) was a corporation with 1,000 shares of stock outstanding at December 31, 1940. Can a prudent investor, using the information given in question 13, determine the price which should be paid for one share of stock on December 31, 1940?

CARNUCK COMPANY

CONDENSED BALANCE SHEET

DECEMBER 31, 1940

Current Assets	$ 60,000.00	Current Liabilities	$ 30,000.00
Fixed Assets Net of Depreciation	170,000.00	Net Worth	200,000.00
	$230,000.00		$230,000.00

Operating profits for the past five years were as follows:

1936	$ 4,000.00
1937	7,000.00
1938	12,000.00
1939	8,000.00
1940	15,000.00
Total	$46,000.00
Average	$ 9,200.00

PART II

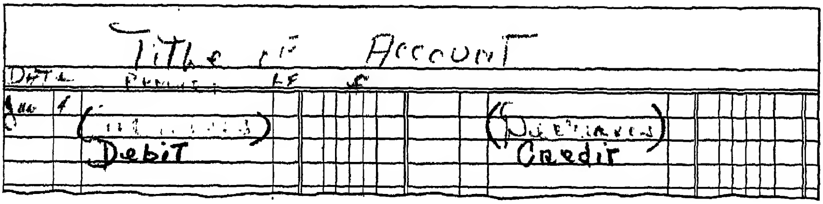
CHAPTER V

RECORDING TRANSACTIONS—THE TRIAL BALANCE

Previous chapters in Part I describe the content and form of various statements which are essential to an intelligent control of the business enterprise. It is obvious that a great amount of information must be conveniently available for use in the preparation of these statements. Knowing what type of information is needed, the next step is to learn how to obtain that information. Statements are summaries of the net effect of numerous transactions on assets, liabilities, and net worth. It is apparent that a record of transactions should be made when they occur, from minute to minute and day to day, and that the nature of these records must be cumulative so that periodically their net effect on assets, liabilities, and net worth may be determined.

It is the purpose of this chapter, and subsequent chapters of Part II, to explain how transactions are recorded and summarized to obtain the information used in statements.

The Ledger Account. A separate record is kept with each item of information shown in the balance sheet, the profit and loss statement, and the statement accounting for changes in net worth. These records are termed *ledger accounts,* and they are contained in a book which is known as the ledger. The pages of a ledger are ruled in the following manner:



Double-Entry Method of Recording Transactions in Ledger Accounts. The double-~~entry~~ method recognizes the fact that each

transaction affects at least two items of information. For example, a cash sale affects the Cash account and the Sales account; a purchase of merchandise on account affects the Purchases account and the Accounts Payable account; the payment of salaries affects the Cash account and the Salary Expense account. Furthermore, the effect of each transaction may be described in terms of increases and decreases. A cash sale effects an increase in the asset cash and an increase in the amount of sales; a purchase of merchandise on account effects an increase in the amount of purchases and an increase in the amount owing, or accounts payable; a payment of salaries effects a decrease in the asset cash and an increase in the amount of salary expense. To provide for the recording of increases and decreases, the account is divided by a heavy vertical line through the center. Increases may be recorded on one side and decreases on the other side. To illustrate, transactions affecting cash are recorded in the Cash account as follows.

CASH	
LEFT SIDE	RIGHT SIDE
Receipts of cash are recorded on this side to show an increase in this asset.	Payments of cash are recorded on this side to show a decrease in this asset.

Terminology of the Account. The terminology, explained below, is employed universally by accountants and bookkeepers:

1. The left side of an account is termed the debit side.
2. The right side of an account is termed the credit side.
3. A debit balance exists when the total amount of debits exceeds the total amount of credits.
4. A credit balance exists when the total amount of credits exceeds the total amount of debits.
5. When an amount is recorded on the left side the account is debited (or charged). When an amount is recorded on the right side the account is credited.

It is important to attach no meaning to the words debit and credit other than left side and right side, respectively. The words debt, debtor, and creditor convey certain meanings which are not to be ascribed to the words debit and credit.

Debit and Credit Rules. The double-entry method employs the following procedures:

1. Asset Accounts. The ledger contains a separate account for each type of asset. The Cash account is usually on page 1 of the ledger, the Accounts Receivable account on page 2 of the ledger, etc. Increases in the value of an asset are recorded as debits in the proper account. Conversely, decreases in the value of an asset are recorded as credits in the proper account. Asset accounts have debit balances.

2. Liability Accounts. The ledger contains a separate account with each type of liability. Increases in the amount of a liability are recorded as credits in the proper account; decreases as debits. It should be observed that the rule for liabilities is the opposite of the rule for assets. As a result, liability accounts have credit balances and asset accounts have debit balances.[1]

3. Net-Worth Accounts. Every item of information which appears in the three statements, other than assets and liabilities, is a net-worth item. An account must be set up for each one of these items, and the rules of debit and credit which apply may be summarized as follows: An account with any item which represents a decrease in net worth will have a debit balance. An account with any item which represents an increase in net worth will have a credit balance. It follows from this that any item tending to decrease profit will be recorded by a debit because profit directly affects net worth. For example, an account with salary expense will have a debit balance. On the other hand, any item tending to increase profit, such as sales, will have a credit balance.

4. When a transaction is recorded in the accounts, the amount debited must equal the amount credited.

Recording Transactions. Recording transactions by the double-entry method may appear difficult in the beginning, but the procedure becomes increasingly easy with practice and drill. It should be remembered that the primary purpose is to supply that information which is to be used in preparing the three statements.

"Sufficient accounts should be provided so that each desired fact can be found as the balance of some account, and care should be exercised in determining which account, in any given case, is the most appropriate one to debit or credit." [2]

[1] It is easy to remember this by recalling that assets are shown on the left side of the balance sheet and liabilities are shown on the right side.

[2] Finney, "Principles of Accounting," Volume I, Chapter II, page 5. Prentice-Hall.

The rules for debit and credit may be mastered by merely concentrating on one aspect of them; namely, increases in assets are recorded by debits. The remaining rules develop quite naturally from this basic rule because if asset increases are recorded by debits, it follows that asset decreases are recorded by credits. Also, since liabilities and net worth are the antitheses of assets, it follows that they are governed by an opposite rule. Some students, however, learn to apply the rules of debit and credit by mastering certain key accounts such as the Cash account. They learn, for example, that cash receipts are debits to cash and that cash payments are credits to cash. Hence, in a cash sale of merchandise, the student has learned that the Cash account is to be debited and since debits and credits must be equal in amount (rule 4 of the debit and credit rules), it immediately follows that the Sales account is to be credited.

It is not particularly important how the student learns the procedure, although some systematic method is admittedly more efficient than pure trial and error. The procedure is, after all, comparatively elementary and a reasonable amount of drill should find the student, in some way or other, quickly mastering the technique.

Before a transaction is recorded, there obviously should be proper evidence that it has occurred. A sales ticket or invoice may support the record of a sale of merchandise; a purchase order or invoice may be the evidence of a purchase of merchandise or supplies; a stub in a check book may be evidence that a check has been issued. Supporting each transaction there should be a business document of some description and, in general, a reference to this document is made in the record of the transaction. The accounting entry of the transaction, therefore, may omit many details when proper reference is made to the supporting document or documents.

Journalizing: A Preparatory Step to Entering Transactions in the Accounts. Transactions are not entered directly in the accounts. A record called the *journal* is provided wherein the analysis of each transaction into its debit and credit components may first be recorded. The debits and credits designated in the journal are later posted (transferred) to the proper ledger accounts. This has the appearance of unnecessary duplication, but the principle of recording all transactions first in a journal and later in the accounts has advantages that far outweigh the disadvantage of any duplication.

The journal contains a chronological record of all transactions wherein the corresponding debit and credit components of each transaction are immediately evident, but it does not reveal the status of

any particular asset, liability, or net worth item. On the other hand, ledger accounts reveal the status of each asset, liability, or net worth item but do not provide a chronological record of transactions such as the journal provides. "The unit of the journal is the transaction; the unit of the ledger is the individual account."[1] Each record is justified because each has its separate and important function. The journal has an additional function which will be described in a later chapter.

As an illustration of basic procedure, the transactions of the Fordon Wholesale Grocery Company for March 1940 will be recorded in the journal and posted to ledger accounts.

The following conventions are observed in the journal entry:

1. Omit dollar marks.
2. The name of the account debited should be written first and the name of the account credited should be written second and indented slightly to the right (corresponding to the relation of the debit and credit amounts).
3. Explanation of each transaction should be made, unless the nature of the entry is obvious from its recording. The necessity for, and extent of, explanation is a matter of judgment and no specific rules apply. Indent explanatory comments slightly to the right of the name of the account credited.
4. Omit a line between transactions. The date of the succeeding transaction may be placed in the center of this space or the date may be entered at the left in the columns provided.
5. A dash (—) may be used in the cents column in place of two zeros (00). This applies to the cents column only. The same convention may be used in the ledger accounts, but it should never be used in the statements.
6. The meaning and use of the L.F. column is explained later.

Posting Procedure. The debits and credits indicated in the journal are transferred to the ledger accounts as follows:

1. Each transaction may be posted immediately after it has been entered in the journal, but in practice it is customary to post when convenient. Ordinarily this might be once a day, late in the afternoon or perhaps early in the morning when business activity might be comparatively low.
2. The debit member of the journal entry is posted first. Turn to the ledger account to be debited.
3. Enter on the debit side of the account:

   (a) The date.
   (b) The number of the journal page from which the entry was posted.

[1] Paton, "Essentials of Accounting," page 127. The Macmillan Company (1938).

This number is written in the J.F. (which means journal folio or journal page) column.

(c) The amount of the debit.

JOURNAL FOR MARCH, 1940 Page 1

Date			L.F.	Debit		Credit	
		2					
		Cash	1	5000	—		
		Jordon, Proprietor	7			5000	—
		To record the cash investment					
		by Mr. Jordon at the start					
		of business					
		6					
		Purchases	9	3105	40		
		Accounts Payable, Trade	4			3105	40
		To record a purchase of					
		merchandise on account from					
		Larew Co. on invoice dated Mar.					
		5, terms 1/10; n/60. Our order #1					
		7					
		Rent Expense	14	150	—		
		Cash	1			150	—
		To record payment of store					
		rent for March					
		8					
		Store Equipment	3	1106	30		
		Note Payable, Other	5			1106	30
		To record purchase of store					
		equipment from Luber Co. on note					
		for 60 days, dated Mar. 8 at 6%.					
		9					
		Accounts Receivable, Trade	2	2164	10		
		Sales	8			2164	10
		To record the sale of merchandise					
		on account, terms 3/10; n/30. Sales					
		invoices #1 to #10 inclusive					

4. Turn back to the journal and, in the L.F. (which means ledger folio or ledger page) column, enter the number of the ledger page to which the entry was posted.
5. Post the credit member of the journal entry in a similar manner.

"Entering the journal page in the ledger and the ledger page in the journal serves two purposes:

"While the bookkeeper is posting, it shows how much of the posting has been done. Thus, if the bookkeeper is called away before posting

MARCH, 1940 Page 2

		12					
		Cash	1	1783	60		
		Sales Discount	15	36	40		
		Accounts Receivable Trade	2			1820	—
		To record collections on account					
		with 2% discount per receipt					
		tickets #1 to #8 inclusive					
		15					
		Accounts Payable, Trade	4	3105	40		
		Cash	1			3074	35
		Purchase Discount	17			31	05
		Payment of Larew Co. invoice					
		dated Mar. 5, less 1% discount					
		19					
		Cash	1	2000	—		
		Notes Payable Bank	6			2000	—
		Loan from 1st Bank on 10 day					
		note dated Mar. 19 at 6%					
		21					
		Purchases	9	620	18		
		Cash	1			620	18
		Merchandise purchased for					
		cash from Clarke Co. Order #2					
		23					
		Purchases	9	1520	20		
		Accounts Payable, Trade	4			1520	20
		To record purchase of merchan-					
		dise on account from Seeman					
		& Co. Terms n/30. Order #3					
		25					
		Accounts Receivable, Trade	2	2160	54		
		Sales	8			2160	54
		Merchandise sold on account					
		terms 2/10; n/30. Sales invoices					
		#11 to #16 inclusive					

is completed, he knows that the work should be taken up again with the first journal entry showing no ledger page number.

"After the posting has been completed, the numbers serve as cross-reference between the journal and the ledger. This is particularly helpful if the bookkeeper, in looking at some ledger account, wishes to find the journal entries from which the postings were made."[1]

MARCH, 1940 Page 3

		29					
		Notes Payable, Bank	6	2000	—		
		Interest Expense	16	3	33		
		Cash	1			2003	33
		To record payment of 1st bank					
		note due today with					
		interest at 6% for 10 days					
		30					
		Cash	1	1695	40		
		Sales Discount	15	31	—		
		Accounts Receivable, Trade	2			1726	40
		Collections on account per					
		receipt tickets #9 to #12 in-					
		clusive. Discounts were					
		not allowed in some cases					
		30					
		Salary Expense	11	620	—		
		Cash	1			620	—
		Salaries for March					
		30					
		Light Expense	13	12	—		
		Advertising Expense	12	56	—		
		Freight-In	10	72	—		
		Cash	1			140	—
		To record payment of					
		invoices as follows:					
		Sun Light & Power 3/30/40 $12.-					
		Bluebird Sign Co. " 56.-					
		C. & C. R. R. " 72.-					
		Total $140.-					

[1] Finney, "Introduction to Principles of Accounting," revised edition, pages 15-16. Prentice-Hall (1938).

The following conventions should be observed in the ledger accounts:

1. Omit dollar marks.
2. After recording the month and day, be certain that the proper year date has been written at the top of the date columns.
3. The name of the month is not repeated.
4. The dash (—) may be used in place of two zeros (00) in the cents column.
5. Explanations in the account are generally omitted because reference is made to the journal entry where a complete record of the transaction is available or where reference is made to a supporting document from which complete information may be obtained.

CASH — Page 1

1940						1940					
Mar.	2		1	5000	—	Mar.	7		1	150	—
	12		2	1783	60		15		2	3074	35
	19		2	2000	—		21		2	620	18
	30	3871.14	3	1695	40		29		3	2003	33
				10479	—		30		3	620	—
							30		3	140	—
										6607	86

ACCOUNTS RECEIVABLE, TRADE — Page 2

1940						1940					
Mar.	9		1	2164	10	Mar.	12		2	1820	—
	25	778.24	2	2160	54		30		3	1726	40
				4324	64					3546	40

STORE EQUIPMENT — Page 3

1940											
Mar.	8	1106.30	1	1106	30						

ACCOUNTS PAYABLE, TRADE — Page 4

1940						1940					
Mar.	15		2	3105	40	Mar.	6		1	3105	40
							23	1520.20	2	1520	20
										4625	60

NOTES PAYABLE, OTHER — Page 5

						1940					
						Mar.	8	1106.30	1	1106	30

The Trial Balance. The equality of debits and credits in the ledger accounts should be tested periodically, generally at the end of each month. After the last journal entry has been posted, the balance of each account should be determined. Referring to the Cash account, the total of the debits has been written in small figures

NOTES PAYABLE, BANK — Page 6

Date		Explanation	Ref.	Amount		Date		Explanation	Ref.	Amount	
1940						1940					
Mar.	29		3	2000	—	Mar.	19	—o—	2	2000	—

FORDON, PROPRIETOR — Page 7

Date		Explanation	Ref.	Amount		Date		Explanation	Ref.	Amount	
						1940					
						Mar.	2	5000 –	1	5000	—

SALES — Page 8

Date		Explanation	Ref.	Amount		Date		Explanation	Ref.	Amount	
						1940					
						Mar.	9		1	2164	10
							25	4324.64	2	2160	54
										4324	64

PURCHASES — Page 9

Date		Explanation	Ref.	Amount		Date		Explanation	Ref.	Amount	
1940											
Mar.	6		1	3105	40						
	21		2	620	18						
	23	5245 78	2	1520	20						
				5245	78						

FREIGHT-IN — Page 10

Date		Explanation	Ref.	Amount		Date		Explanation	Ref.	Amount	
1940											
Mar.	30	72.–	3	72	—						

SALARY EXPENSE — Page 11

Date		Explanation	Ref.	Amount		Date		Explanation	Ref.	Amount	
1940											
Mar.	30	620.–	3	620	—						

directly under the last debit amount. Also the total of the credits is written directly under the last credit amount. The excess of total debits over total credits represents a debit balance which is written on the debit side in the explanation column and opposite the total of debits. Referring to the Accounts Payable (trade) account, the

excess of total credits of $4,625.60 over the debit of $3,105.40 represents a credit balance of $1,520.20 which is written on the credit side in the explanation column, opposite the total of credits.

The balance of each account must be determined and noted in this manner, except that there obviously is no point in showing a total

ADVERTISING EXPENSE — Page 12

1940											
Mar.	30	56.–	3	56	–						

LIGHT EXPENSE — Page 13

1940											
Mar.	30	12 –	3	12	–						

RENT EXPENSE — Page 14

1940											
Mar.	7	150.–	1	150	–						

SALES DISCOUNT — Page 15

1940											
Mar.	12		2	36	40						
	30	67.40	3	31	–						
				67	40						

INTEREST EXPENSE — Page 16

1940											
Mar.	29	3.33	3	3	33						

PURCHASE DISCOUNT — Page 17

						1940					
						Mar.	15	31.05	2	31	05

of one figure. After the balance of each account has been determined, a list of the accounts and their balances is prepared on a separate sheet of paper, and this list is known as a trial balance.

Dollar marks may, or may not, be used in the trial balance. Ledger accounts which do not have a balance, such as notes payable

(bank), should be omitted. The trial balance is not a statement, it is a bookkeeping device which serves as a partial check on the recording of transactions. The totals of the debit and credit columns of the

FORDON WHOLESALE GROCERY COMPANY

TRIAL BALANCE, MONTH ENDED MARCH 31, 1940

Ledger Page	Account Titles	Debit	Credit
1	Cash	$ 3,871.14	
2	Accounts Receivable (trade)	778.24	
3	Store Equipment	1,106.30	
4	Accounts Payable (trade)		$ 1,520.20
5	Notes Payable (other)		1,106.30
7	Fordon, Proprietor		5,000.00
8	Sales		4,324.64
9	Purchases	5,245.78	
10	Freight-In	72.00	
11	Salary Expense	620.00	
12	Advertising Expense	56.00	
13	Light Expense	12.00	
14	Rent Expense	150.00	
15	Sales Discount	67.40	
16	Interest Expense	3.33	
17	Purchase Discount		31.05
	Totals	$11,982.19	$11,982.19

FIG. 13.

trial balance should be equal. The equality will exist if all transactions have been recorded by equal debits and credits and correctly posted. If the debit of a transaction is correctly posted as $430.00 and the credit incorrectly posted as $340.00 (an unconscious transposition of figures), the trial balance will disclose the existence of this error. The trial balance will disclose other errors, but it will not disclose an error in the selection of the account debited or credited.

A Further Analysis of Certain Transactions. Several disconnected transactions of various types are described, journalized, and discussed in the pages that follow as a further aid to the student in developing his ability to analyze transactions in accordance with double-entry rules.

(1)

The X Corporation issues for cash 1,000 shares of 6% preferred stock, par $100.00 each, at $110.00 per share.

ANALYSIS

	Debit	Credit
Cash	*110,000.00*	
6% Preferred Stock........................		*100,000.00*
Premium on Preferred Stock		*10,000.00*

This transaction results in an increase in assets and net worth. As increases in assets are recorded by debits, the Cash account is debited. As increases in net worth are recorded by credits, the 6% Preferred Stock account and the Premium on Preferred Stock account are credited. The premium may be added to par value on the balance sheet to show the total amount paid in by stockholders or the premium may be considered as paid-in surplus on the balance sheet.

Additional entries peculiar to the corporate form of ownership are described in a later chapter.

(2)

A building was purchased at a cost of $50,000.00. A mortgage note for $30,000.00, due in ten years, was signed and the balance of $20,000.00 was paid in cash.

ANALYSIS

	Debit	Credit
Building	*50,000.00*	
Cash		*20,000.00*
Mortgage Payable		*30,000.00*

If the rules of debit and credit are applied correctly, the analysis of each transaction will result in an equality of debits and credits. That is, the amount of debit will equal the amount of credit.

In this transaction, the debit to building records the increase in that asset, and the credit to cash records the decrease in that asset. The credit to mortgage payable records the increased liability resulting from the transaction.

(3)

Purchase office equipment, such as desks, chairs, filing cabinets, carpets, adding machines, and typewriters for $8,000.00. The purchase was made for cash.

ANALYSIS

	Debit	Credit
Office Furniture and Equipment	*8,000.00*	
Cash		*8,000.00*

It should be observed that the Purchases account is debited only when the item purchased is merchandise.

The debit might have been made to office equipment. The choice of account titles should be made carefully so that there is never any question as to what the balance of each account represents. While the exact titles of many accounts are fairly well standardized, there always will be variations owing to the nature and size of the business. Clarity in the title of an account should not be sacrificed for brevity.

(4)

Paid $2,000.00 cash for merchandise.

ANALYSIS

	Debit	Credit
Purchases	*2,000.00*	
Cash		*2,000.00*

The decrease in cash is recorded as a credit. But why is it that a Merchandise account is not debited to record an increase in that asset? In the first place, it is necessary to have a record of the amount of purchases as this item of information is used in the profit and loss statement. In the second place, merchandise is the one asset for which increases and decreases are not recorded in general accounting procedure. An account is set up to show the merchandise on hand at the end of each period, but no record is made in the accounts of changes which occur during the period. To obtain the amount of merchandise on hand at any time, it is necessary to make a physical count, or, in other words, to take inventory.

(5)

Additional merchandise was purchased on account for $900.00.

ANALYSIS

	Debit	Credit
Purchases	*900.00*	
Accounts Payable (trade)		*900.00*

This is known as a purchase of merchandise on account. When a purchase of merchandise is made, either for cash or on account, the Purchases account is debited. The asset cash was not affected in this transaction but liabilities were increased as indicated by a credit to the Accounts Payable (trade) account. This is in accordance with the rule that increases in liabilities are recorded by credits.

(6)

A portion of the merchandise purchased on account, see (5), was found to be defective. This defective merchandise cost $90.00 and was returned to the vendor.

ANALYSIS

	Debit	Credit
Accounts Payable (trade)	*90.00*	
Purchase Returns		*90.00*

The amount which is owing to the vendor is reduced, and this decrease in liabilities is recorded as a debit. When the merchandise was purchased, the Purchases account was debited, and as purchase returns are deducted from purchases, the Purchase Returns account is credited. In other words, a purchase return is the opposite of a purchase. Merchandise on hand is decreased but no record of this is made in the accounts.

(7)

Sold merchandise for $800.00 cash.

Analysis

	Debit	Credit
Cash	*800.00*	
Sales		*800.00*

The asset cash is increased. The credit to sales represents an increase in net worth because sales tend to increase profit. Merchandise on hand is decreased but no record of this is made in the accounts.

(8)

Part of the merchandise sold for cash in (7) was defective. The customer returned the merchandise and a refund of $30.00 was made.

Analysis

	Debit	Credit
Sales Returns	*30.00*	
Cash		*30.00*

A sales return is the opposite of a sale. Since a sale is recorded by a credit, a sales return must be recorded by a debit.

(9)

The directors of the X Corporation declared a dividend of 2% on stock of $100,000.00 par value. The dividend was payable two weeks later.

Analysis

	Debit	Credit
Earned Surplus	*2,000.00*	
Dividend Payable		*2,000.00*

The action of the directors sets up the current liability of dividend payable. This will be paid two weeks later.

(10)

The dividend declared in the previous transaction (9) was paid.

Analysis

	Debit	Credit
Dividend Payable	*2,000.00*	
Cash		*2,000.00*

(11)

Miscellaneous and relatively small expense items were paid by cash.

ANALYSIS

	Debit	Credit
Sundry Expenses	*52.00*	
Cash		*52.00*

A separate expense account should be set up for each important item. The use of a Sundry Expenses account is necessary, however, to provide for the recording of small and unimportant items.

"T" Account. In the solution of problems, and in blackboard illustrations, a form of account known as the "T" account is sometimes used. It is merely an informal simplified representation of the account, omitting all rulings except the lines across the top and down the center. (Dates may be inserted before each debit or credit amount if desired.)

ILLUSTRATION OF A "T" ACCOUNT

CASH

5,100	1,000
200	2,000
	600
	400

QUESTIONS

1. Do asset accounts have debit or credit balances?
2. Does the $600.00 represent an asset, expense, income, or liability? Discuss.

?

600	

3. What is meant by "debit side"?
4. Why do expense accounts have debit balances?
5. In each case, describe and analyze a transaction which would produce the following stated effects:

a. Increase an asset, increase net worth.
b. Increase an asset, increase a liability.
c. Increase one asset, decrease another asset.
d. Decrease an asset, decrease a liability.
e. Decrease an asset, decrease net worth.
f. Decrease one liability, increase another liability.
g. Decrease net worth, increase a liability.

6. Name two accounts, each of which might be the corresponding debit of a credit to the Sales account.
7. Why does the Purchase Returns account have a credit balance?

8. Would the Reserve for Depreciation of Buildings account have a debit or credit balance? Why?

9. Asset accounts and accounts which show a decrease in net worth have debit balances. How can one distinguish between the two types of accounts?

10. What determines the number of accounts which are maintained in the ledger?

11. A customer owes us $800.00. He then gives us a note for $300.00. How much does he still owe on account? How much does he still owe in total? Does this transaction affect our total assets?

12. List all accounts in the following group which normally would have a debit balance:

Cash
Sales
Purchase Returns and Allowances
Salaries
Notes Payable
Freight-In on Purchases
Buildings
Sales Returns and Allowances
Interest Earned
Purchase Discount

13. Indicate the debit and credit for each of the following:

a. Cash sale of merchandise.
b. Purchase of merchandise on account.
c. Purchase of a building for cash.
d. Return of merchandise which was purchased on account.
e. Customer pays cash on account.
f. Received a note from a customer on account.
g. Paid cash to creditor on account—allowed a cash discount.
h. Paid a note and interest due today.
i. Allowed a customer credit because of defective merchandise sold to him on account.

14. Explain the functions of the L.F. column in the journal; the J.F. column in the ledger account.

15. Why is it that explanations are unnecessary in the accounts?

16. Why is the total of debit amounts in the Cash account, for example, written in small figures "up and off" the line?

17. The bookkeeper records a $1,000.00 cash purchase of office equipment in the journal as follows:

Purchases	*1,000.00*	
Cash		*1,000.00*

Will this error be discovered by taking a trial balance?

CHAPTER VI

ADJUSTING ENTRIES AND THE ADJUSTED TRIAL BALANCE

Certain basic bookkeeping procedures were described in the preceding chapter. These may be summarized in their proper sequence as follows:

1. Journalize transactions as they occur from day to day.
2. Post debits and credits indicated in the journal to the proper ledger accounts. This may be done from day to day or when convenient.
3. At the end of the month, and after all transactions have been posted, determine the balance of each account and prepare a trial balance.

These basic procedures are repeated each month and the bookkeeper places the successive monthly trial balances in a file for future reference. As previously explained, however, the trial balance is merely a bookkeeping device and not a statement.

Statements are prepared at intervals from information contained in the trial balance. The business activity of most concerns is seasonal and a twelve-month period is the shortest one which completes the cycle of seasons. For this reason, the year is usually stressed as the interval of time between statements.[1]

The Decker Corporation was organized December 31, 1939. Six hundred shares of stock, par $100.00 each, were issued in exchange for cash of $63,000.00 and merchandise valued at $18,000.00. The balance sheet on December 31, 1939, prior to the start of business on January 1, 1940, is shown on page 80. Statements are to be prepared annually.

[1] "The 'period' is one of the important conventions of accounting. For the purpose of the 'test-reading' of revenues and applicable cost, the interval of time which is usually stressed is the year calendar or fiscal." W. A. Paton and A. C. Littleton, "An Introduction to Corporate Accounting Standards," page 22. The American Accounting Association (1940).

DECKER CORPORATION

Balance Sheet, December 31, 1939

Assets		Net Worth	
Cash	$63,000.00	*Capital Stock, par* $100.00:	
Merchandise Inventory	18,000.00	Authorized and issued 600 shares	$60,000.00
		Paid-In Surplus:	
		Premium on stock	21,000.00
	$81,000.00		$81,000.00

At the start of business January 1, 1940, the ledger contained only those accounts indicated in the trial balance shown below.

DECKER CORPORATION

Trial Balance, Start of Business

January 1, 1940

	Debit	*Credit*
Cash	$63,000.00	
Merchandise Inventory	18,000.00	
Capital Stock—Authorized and Issued		$60,000.00
Premium on Stock		21,000.00
Totals	$81,000.00	$81,000.00

Transactions for 1940 were properly journalized and posted to the accounts. New accounts were opened when necessary and a trial balance was prepared at the end of each month. The final trial balance, taken from the ledger accounts on December 31, 1940, is shown in Fig. 14. Balances shown for all profit and loss accounts are amounts accumulated during the twelve months, while those shown for assets and liabilities are amounts representing the final status of those items at December 31, 1940.

Need for Adjustments. It is generally necessary to adjust the trial balance data before statements are prepared therefrom. Certain types of expense and income accrue from day to day although they may be recorded in advance of, or subsequent to, such accrual. To illustrate, salary expense accrues from day to day, but employees may

DECKER CORPORATION

Trial Balance—Year Ended December 31, 1940

Account Title	Account Balance Debit	Account Balance Credit
Cash	$ 5,000.00	
Notes Receivable	4,000.00	
Accounts Receivable	25,000.00	
Merchandise Inventory	18,000.00	
Buildings	80,000.00	
Store Fixtures	10,000.00	
Accounts Payable		$ 10,550.00
Notes Payable		6,000.00
Mortgage Payable		40,000.00
Capital Stock—Authorized and Issued		60,000.00
Premium on Stock		21,000.00
Sales		98,000.00
Sales Returns	3,000.00	
Sales Allowances	1,000.00	
Purchases	60,000.00	
Purchase Returns		3,000.00
Purchase Allowances		1,000.00
Freight-In on Purchases	4,000.00	
Salesmen's Salaries	12,000.00	
Advertising Expense	2,600.00	
Office Supplies Expense	100.00	
Telephone and Telegraph	150.00	
Miscellaneous Selling Expense	200.00	
Administrative Salaries	8,000.00	
Light, Heat, and Water	1,500.00	
Tax Expense	1,000.00	
Insurance Expense	1,200.00	
Miscellaneous Administrative Expense	300.00	
Interest Expense	2,700.00	
Sales Discount	1,500.00	
Interest Earned		100.00
Purchase Discounts		600.00
Rent Income		1,000.00
	$241,250.00	$241,250.00

Fig. 14.

be paid at the end of each week. If December 31 falls on a Wednesday, salary expense for three days will have accrued at that time. It is probable that salary expense, as shown in the trial balance of December 31, does not include the salary expense accrued merely because it has not been paid. Furthermore, it is probable that the liability to employees for accrued salary is not shown as a liability in the trial balance. If statements are prepared from unadjusted trial balance data, liabilities may be understated on the balance sheet and salary expense may be understated on the statement of profit and loss.

It is also possible that the amount of interest earned in the trial balance will be the amount received rather than the actual amount earned; and the amount of interest received in any period may be more or less than the actual amount of interest earned because interest is sometimes received before it is earned (i.e., prepaid), and it is sometimes not received until after it has been earned. It is never received day by day as it is earned.

Depreciation of fixed assets is ordinarily not recorded during the period. It would not be practicable to record depreciation day by day and, furthermore, no purpose would be served because complete information is needed only when statements are to be prepared.

There are, in all, six basic types of adjustments which are generally necessary. Adjustments must be made:

1. For income which has been earned but not recorded (accrued income).
2. For expense which has been incurred but not recorded (accrued expense).
3. For expense which has been recorded but which has not been incurred (prepaid expense).
4. For income which has been recorded but which has not been earned (prepaid income).
5. To provide for possible bad debt losses in the accounts receivable (bad debt provision).
6. To provide for depreciation of fixed assets (depreciation provision).

Purpose of Adjustments. The purpose of adjustments is to correct trial balance figures to provide corrected data which may be used in the preparation of statements. This is accomplished by adding to the trial balance an adjustment column and an adjusted trial balance column as illustrated in Fig. 15, page 86. By combining amounts in the trial balance and adjustment columns, a corrected figure is obtained which is placed in the adjusted trial balance.

Practice varies, but it is perhaps advisable to record the adjusting entries in the journal before entering then in the adjustment column opposite the trial balance. The journal of the Decker Corporation, containing adjusting entries at December 31, 1940, is shown on pages 84 and 85. The point at issue is that statements should be prepared as quickly as possible, and some bookkeepers prefer to postpone the recording of adjusting entries in the journal until after statements have been prepared. However, adjusting entries should be approved by someone in authority, other than the bookkeeper, and the form in which they appear in the adjustment column opposite the trial balance is quite unsatisfactory for this purpose. The debit and credit components of each adjusting entry are not conveniently associated in the adjustment column, and neither is an adequate explanation of each entry available there. Furthermore, the time consumed in recording the adjusting entries in the journal will not seriously postpone the completion of statements. The procedure adopted in this chapter is as follows:

1. Record adjusting entries in the journal, accompanying each entry with adequate explanation. Adjusting entries are recorded in the journal immediately following the entry of the last transaction of the period, but they should be separated therefrom by some proper heading, such as "Adjusting Entries for December 31, 1940." Each adjusting entry is given a letter or number for the purpose of convenient reference.
2. Enter adjustments in the adjustment column opposite the proper account titles in the trial balance, using the proper letter or number designation to tie up corresponding debits and credits.
3. Combine the trial balance and the adjustment figures to obtain the adjusted trial balance.
4. Prepare the statements from the adjusted trial balance.
5. Post the adjusting entries from the journal to the ledger accounts.

This chapter is concerned with steps 1, 2, and 3. The remaining steps will be described in the next chapter.

The adjusting entries for the Decker Corporation at December 31, 1940, are illustrated first as they would appear in the journal and next as they would appear in the adjustment column opposite the trial balance. Following these illustrations each adjustment is further described and explained.

JOURNAL OF DECKER CORPORATION

ADJUSTING ENTRIES AT DECEMBER 31, 1940

				Debit	Credit
		a			
		Accrued Interest on Notes Receivable.....		20.00	
		Interest Earned......................			20.00
		To record interest accrued on Dimling note for $4,000.00 dated Dec. 1, 1940, at 6%. This entry sets up the current asset of accrued interest receivable and increases the income interest earned to include interest earned on this note.			
		b			
		Salesmen's Salaries....................		600.00	
		Administrative Salaries................		900.00	
		Accrued Salaries Payable.............			1,500.00
		To record December 30 and 31 salaries accrued. This entry increases the expense items to include the Salary Expense incurred for these two days and also sets up the liability to employees at Dec. 31, 1940.			
		c			
		Prepaid Insurance Expense.............		900.00	
		Insurance Expense...................			900.00
		To record insurance premium unexpired at Dec. 31, 1940. This entry sets up the asset of prepaid insurance expense and reduces the insurance expense from $1,200.00 to $300.00, the latter amount being the expired premium at Dec. 31, 1940.			
		c'			
		Prepaid Office Supplies Expense..........		25.00	
		Office Supplies Expense...............			25.00
		To set up the asset of prepaid office supplies expense, being the inventory of unused office supplies. This entry reduces the office supplies expense from $100.00 to $75.00, the latter amount being the cost of office supplies used. Note: The debit is sometimes made to Office Supplies on Hand or Inventory of Office Supplies. As a consistent practice to follow, however, it is better to insert the word prepaid before the title of the expense to obtain the title of the asset.			

JOURNAL OF DECKER CORPORATION—*Continued*

ADJUSTING ENTRIES AT DECEMBER 31, 1940

		d			
		Rent Income...........................		800.00	
		Prepaid Rent Income..................			800.00
		To reduce rent income from $1,000.00 to $200.00, the latter amount being the amount of rent earned at Dec. 31, 1940. This entry sets up the liability of prepaid rent income at $800.00 representing our obligation to permit the lessee to use the second floor of our building for four months subsequent to Dec. 31, 1940.			
		e			
		Bad Debt Expense.....................		500.00	
		Reserve for Bad Debts................			500.00
		To record estimated bad debt loss on sales of $25,000.00 at 2%.			
		f			
		Depreciation Expense—Building.........		1,600.00	
		Reserve for Depreciation—Building....			1,600.00
		To record depreciation for 1 year on the building based on a life of 50 years.			
		Cost................. $80,000.00			
		Life.................. 50 years			
		Yearly depreciation... $ 1,600.00			
		f′			
		Depreciation Expense—Store Fixtures....		1,000.00	
		Reserve for Depreciation—Store Fixtures........................			1,000.00
		To record depreciation for 1 year on the store fixtures.			
		Cost................. $10,000.00			
		Estimated Life........ 10 years			
		Yearly depreciation... $ 1,000.00			

Adjustment for Accrued Income. On December 31, 1940, the Decker Corporation had the following note receivable in its safe:

> $4,000.00 *Iowa City, Iowa, December 1, 1940*
> SIXTY DAYS AFTER DATE FOR VALUE RECEIVED
> I PROMISE TO PAY *Decker Corporation* OR ORDER
> *Four Thousand and no/100*........................DOLLARS
> WITH INTEREST AT 6% PER ANNUM
> PAYABLE AT First National Bank
> *Dimling Company*
> *per H. C. D.*

The interest for 60 days on $4,000.00 at 6% is $40.00, but this interest will not be received by the Decker Corporation until the note becomes due on January 30, 1941. At December 31, 1940, no entry has been made for interest on this note merely because none has been received. Interest accrues day by day, however, and it must be recognized that one-half of the $40.00 has been earned at December 31, 1940. The accrual method allocates income to the period in which it is earned, irrespective of when it is received.

The trial balance, Fig. 15, shows the asset, notes receivable, at its face of $4,000.00 and the income, interest earned at $100.00. The fact that an additional $20.00 is receivable and has been earned is not reflected in the trial balance data. The adjusting entry to correct this understatement of assets and income is shown in the adjustment column opposite the trial balance, Fig. 15, and in the journal on page 84. The entry is designated as adjustment *a*. The journal entry will not be posted to the accounts until after the statements have been prepared because every effort is made to complete the statements as quickly as possible and the corrected data can be more conveniently obtained by directly adjusting the trial balance data first. As a result of this adjustment, the balance sheet will show accrued interest receivable of $20.00, as a current asset, in addition to the note receivable of $4,000.00 The profit and loss statement will show interest earned of $120.00 instead of only $100.00.

Receivables which are created by accrued income are current assets if they will be converted into cash within one year. In general, it may be said that receivables of this type are current. Reference may be

DECKER CORPORATION — YEAR ENDED, DECEMBER 31, 1940

Account Title	Trial Balance Debit	Trial Balance Credit	Adjustments Debit	Adjustments Credit	Adjusted Trial Balance Debit	Adjusted Trial Balance Credit
Cash	$ 5 000 —	$	$	$	$ 5 000 —	$
Notes Receivable	4 000 —				4 000 —	
Accounts Receivable	25 000 —				25 000 —	
Merchandise Inventory	18 000 —				18 000 —	
Buildings	80 000 —				80 000 —	
Store Fixtures	10 000 —				10 000 —	
Accounts Payable		10 550 —				10 550 —
Notes Payable		6 000 —				6 000 —
Mortgage Payable		40 000 —				40 000 —
Capital Stock — Authorized and Issued		60 000 —				60 000 —
Premium on Stock		21 000 —				21 000 —
Sales		98 000 —				98 000 —
Sales Returns	3 000 —				3 000 —	
Sales Allowances	1 000 —				1 000 —	
Purchases	60 000 —				60 000 —	
Purchase Returns		3 000 —				3 000 —
Purchase Allowances		1 000 —				1 000 —
Freight - In on Purchases	4 000 —				4 000 —	
Salesmen's Salaries	12 000 —		600 - b		12 600 —	
Advertising Expense	2 600 —				2 600 —	
Office Supplies Expense	100 —			25 - c'	75 —	
Telephone and Telegraph	150 —				150 —	
Miscellaneous Selling Expense	200 —				200 —	
Administrative Salaries	8 000 —		900 - b		8 900 —	
Light, Heat and Water	1 500 —				1 500 —	
Tax Expense	1 000 —				1 000 —	
Insurance Expense	1 200 —			900 - c	300 —	
Miscellaneous Administrative Expense	300 —				300 —	
Interest Expense	2 700 —				2 700 —	
Sales Discount	1 500 —				1 500 —	
Interest Earned		100 —		20 - a		120 —
Purchase Discounts		600 —				600 —
Rent Income		1 000 —	800 - d			200 —
	$ 241 250 —	$ 241 250 —				
Accrued Interest on Notes Receivable			20 - a		20 —	
Accrued Salaries Payable				1 500 - b		1 500 —
Prepaid Insurance Expense			900 - c		900 —	
Prepaid Office Supplies Expense			25 - c'		25 —	
Prepaid Rent Income				800 - d		800 —
Bad Debt Expense			500 - e		500 —	
Reserve for Bad Debts				500 - e		500 —
Depreciation Expense - Building			1 600 - f		1 600 —	
Reserve for Depreciation - Building				1 600 - f		1 600 —
Depreciation Expense - Store Fixtures			1 000 - f'		1 000 —	
Reserve for Depreciation - Store Fixtures				1 000 - f'		1 000 —
			$ 6 345 —	$ 6 345 —	$ 245 870 —	$ 245 870 —

Fig. 15.

made to page 98 to observe the treatment of accrued interest on notes receivable in the balance sheet. When there are several accrued assets, they may be combined and shown in one amount. A general term, such as accrued receivables, would be appropriate in such a situation.

Adjustment for Accrued Expense. The Decker Corporation pays its employees on Saturday of each week. The last pay day was Saturday, December 28, 1940, and hence on December 31, 1940, two days' salaries are owing to employees (Monday the thirtieth and Tuesday the thirty-first).

Salaries owing to salesmen on December 31, 1940	$ 600.00
Salaries owing to administrative clerks on December 31, 1940	900.00
Total salaries accrued	$1,500.00

Employees have earned this amount, and the corporation has incurred the expense in 1940 even though payment will not be made until Saturday, January 4, 1941. The salary expenses, as shown in the trial balance, do not include these accruals and to that extent are understated. Furthermore, the trial balance does not show the liability for these salaries. Adjustment *b* corrects this understatement of both expense and liability.

Accrued liabilities are current if they are due to be paid within one year. In general, it may be said that they are current liabilities.

The word accrued in the title of any item stamps it as a balance sheet item irrespective of other terms which may follow that word. The word accrued may be interpreted to mean owing. To describe an item as accrued interest is not sufficient, as this merely means that interest is owing. No indication is given of whether it is owing to us or by us. In general, it is desirable to include the word receivable or payable, as the case may be, to provide a definite distinction between the asset and the liability. It should be obvious, however, that the following titles all mean the same thing:

1. Accrued interest on notes payable
2. Accrued interest payable
3. Accrued interest expense
4. Accrued interest cost

Each contains the words accrued interest and, in each case, the remainder of the title is sufficient to indicate that the interest is owing by us and not to us.

Adjustment for Prepaid Expense. On December 1, 1940, the Decker Corporation paid a premium of $1,200.00 for an insurance policy providing four months' protection against fire. (Premiums on insurance policies must be paid in advance.) At that time the transaction was recorded as follows:

	Debit	*Credit*
Insurance Expense	*1,200.00*	
Cash		*1,200.00*

The Insurance Expense account therefore had a debit balance of $1,200.00 when the trial balance was prepared on December 31, 1940. But at that time only one-fourth of the protection had been received, and hence an expense of only $300.00 had been incurred. The remaining $900.00 is a prepayment. It is a claim against the insurance company for three additional months of protection and is an asset of the Decker Corporation. This claim may be compared roughly to the unused portion of a season book of tickets which provides admission to a series of athletic events. Each is a claim of future privilege evidenced by a written contract, and of definite value to the possessor. Adjustment *c* is necessary to reduce the expense to $300.00 and to set up an asset of $900.00.

The adjustment is recorded in the journal and in the adjustment column opposite the trial balance. Combined with the trial balance figures in respect to these items, it produces the correct amount of expense and the new asset in the adjusted trial balance. When the profit and loss statement is prepared only $300.00 insurance expense will be shown instead of $1,200.00. On the other hand, the balance sheet will show an asset of $900.00. If the adjustment is ignored, the expenses will be overstated and the assets understated.

Inventories of supplies represent another distinct type of prepaid expense. In January 1940 the Decker Corporation purchased office supplies such as ink, pencils, stamps, and stationery. The transaction was recorded as follows:

	Debit	*Credit*
Office Supplies Expense	*100.00*	
Cash		*100.00*

The trial balance of December 31, 1940, therefore shows a debit balance of $100.00 in the Office Supplies Expense account. But an inventory taken December 31, 1940, discloses the fact that $25.00 worth of these supplies are on hand, unused. As expense is incurred only as supplies are used, it is evident that the correct office supplies expense

is $75.00 and not $100.00. Adjustment *c′* is made to reduce expense to $75.00 and to set up the asset for unused office supplies.

The adjusted trial balance shows the correct expense of only $75.00, which will appear in the profit and loss statement, and the asset of $25.00, which will appear in the balance sheet. If the adjustment is ignored, expenses will be overstated and assets understated.

Alternate Adjustment for Prepaid Expense. When supplies are purchased, the transaction may be recorded as a debit to the Prepaid Supplies Expense account rather than to a Supplies Expense account. (The credit in either case is cash.) This is a logical analysis because the supplies should be charged to an expense as they are used rather than as they are purchased. If the Decker Corporation had recorded the purchase of office supplies in January 1940 as follows:

	Debit	*Credit*
Prepaid Office Supplies Expense	*100.00*	
Cash		*100.00*

then the trial balance at December 31, 1940, would have shown prepaid office supplies expense with a debit of $100.00 rather than office supplies expense. This would cause a variation in the adjustment, but it does not introduce a new problem. The adjusted trial balance must contain an asset of $25.00 and an expense of $75.00, irrespective of how the transaction was recorded originally. The adjustment in this case would be:

	Debit	*Credit*
Office Supplies Expense	*75.00*	
Prepaid Office Supplies Expense		*75.00*
To reduce the asset prepaid office supplies expense to $25.00 and to set up the office supplies expense at $75.00.		

Insurance premium payments may be charged to Prepaid Insurance rather than to Insurance Expense. The adjustment at the end of the period would reduce the prepaid item and charge the expired premium as expense.

In conclusion, the adjustment for prepaid expenses should be considered from two viewpoints:

1. An inspection of expenses, as shown in the trial balance, to determine whether any portions are prepayments. An adjustment might be needed to reduce the expense and to set up an asset for such portions.

2. An inspection of prepaid expense assets, as shown in the trial balance, to determine whether any portion of them has ceased to be an

asset and is now expense. An adjustment might be needed to reduce the asset and to set up an expense for such portions.

Ordinarily there is no method of recording transactions of this type which will eliminate the necessity of adjustments. When supplies are purchased or insurance is paid in advance, the transaction must be recorded as a debit to an expense or as a debit to an asset (prepaid expense). In either case an adjustment probably will be necessary at the end of each period to show the then existing asset or expense.

Prepaid expense is that portion of recorded expense which has not been incurred and hence is an asset in the form of a prepayment. The adjusted trial balance must show the amount of expense and the amount of prepayment. In assigning titles to assets created by these adjustments, it is suggested that the word prepaid be prefixed to the expense title. (Exceptions might be made where the asset represents a tangible asset such as office supplies. In that case the asset may be titled office supplies on hand or warehouse supplies on hand, etc.). Prepaid expense assets are shown in the balance sheet as a separate class of assets between the current and fixed classifications. (See balance sheet on page 98.)

Adjustment for Prepaid Income. The Decker Corporation rents the second floor of its building for $200.00 a month. On December 1, 1940, five months' rent was received in advance, the transaction being recorded as follows:

	Debit	*Credit*
Cash	*1,000.00*	
Rent Income		*1,000.00*

But only one-fifth of this has been earned by December 31, 1940, and rent income must be reduced to $200.00. The remaining $800.00 should be set up as a prepaid income liability. Liabilities have been defined as debts owing by an enterprise. Prepaid income does not conform exactly to this definition but it is a liability nevertheless in the sense that it is a service owing to the tenants. The Decker Corporation is obligated to permit the tenant to occupy the second floor for four additional months at least. Adjustment *d* is necessary to correct the trial balance data.

As a result of this adjustment, the adjusted trial balance shows rent income of only $200.00 instead of $1,000.00. The profit and loss statement, therefore, will show rent income as only $200.00. This is correct because, in accordance with the accrual method, income is shown in the profit and loss statement as it is earned rather than

when the cash is received. The balance sheet will show a liability of $800.00. (See page 98.)

Alternate Adjustment for Prepaid Income. Suppose that on December 1, 1940, the transaction had been recorded as follows:

	Debit	Credit
Cash	*1,000.00*	
Prepaid Rent Income		*1,000.00*

This analysis would be correct because at that time the entire $1,000.00 was a prepayment, none of which had been earned. On December 31, 1940, however, the following adjustment would be necessary to show $200.00 as earned and only $800.00 as prepaid:

	Debit	Credit
Prepaid Rent Income	*200.00*	
Rent Income		*200.00*

As was the case with prepaid expenses, the adjustment varies, depending on the method of recording the transaction originally. But again no additional problem is encountered. The adjusted trial balance must show $200.00 as earned and $800.00 as prepaid.

Adjustments for prepaid income should be considered from two viewpoints:

1. An inspection of incomes as shown in the trial balance to determine whether any portions of them are prepayments which are unearned. If they are, adjustments must be made to reduce income and to set up prepayments as liabilities.
2. An inspection of prepaid incomes as shown in the trial balance to determine whether any portions of them are earned. An adjustment may be necessary to reduce the amount of prepayment and to set up the income which has been earned.

Prepaid income is that portion of income which has been received but not earned. Recognition that certain income which has been received is not yet earned creates the liability of prepaid income. These liabilities represent debts of service rather than of money and are distinguished by the word prepaid which is prefixed to the title of the income. Prepaid income liabilities are shown in the balance sheet as a separate classification, between current liabilities and fixed liabilities. (See balance sheet on page 98.)

The word prepaid in the title of any item stamps it as a balance sheet account, irrespective of what other terms are in the title. Prepaid expenses are assets, and prepaid incomes are liabilities. To pro-

vide this distinction the word expense or income should appear in the title.

Opinions differ as to whether prepaid items should be included in working capital. The nature of prepayments and other factors affect decisions in this respect, and it is advisable to show prepaid expenses and prepaid incomes as separate classes so that they may be excluded from, or included in, the working capital as desired.

Adjustment for Bad Debts. The Decker Corporation began business on January 1, 1940, and has not had any bad debt losses in the past year. That is, none of the amounts owing to it by customers has been determined to be definitely uncollectible. On December 31, 1940, these customers owe $25,000.00 as shown in the trial balance opposite accounts receivable. It is estimated, however, that of this amount it is quite probable that $500.00 or 2% will not be collected. For this reason it is desirable to do two things:

1. Show the accounts receivable asset on the balance sheet at an amount which is reasonably collectible.

2. Show a bad debt expense in the profit and loss statement of 1940. It may be contended that the loss should be charged to that year in which the debt was contracted rather than to that year in which the amount happened to become definitely uncollectible. In other words, the year in which credit was granted should be made responsible for bad debt losses rather than the year in which hope of collection was abandoned. Even though no actual bad debt loss occurred in 1940, it may be better to have each year show a reasonable loss instead of showing no loss one year and very heavy losses the next year.

Adjustment *e* obtains the desired results. Adjustment *e* is recorded in the adjustment column opposite the trial balance and in the journal. The profit and loss statement will show an expense of $500.00, and on the balance sheet the reserve for bad debts will be deducted from accounts receivable as illustrated on page 98.

The effect of this adjustment is the same as if the corporation had decided that $500.00 of the accounts receivable were worthless, resulting in a loss. The difference to be noted, however, is that the loss is only an estimate and that instead of crediting accounts receivable, to show a decrease in that asset, the credit is made to the reserve for bad debts. However, the reserve is deducted from accounts receivable on the balance sheet, and the net effect is just the same as if the adjustment credit had been made directly to the accounts receivable item itself. Later, when bad debt losses actually occur, when it is

determined definitely that certain customers cannot pay, no loss is recorded. Worthless accounts are "written off" against the reserve for bad debts account by an entry as follows:

	Debit	*Credit*
Reserve for Bad Debts	*xx*	
Accounts Receivable		*xx*

Estimates of bad debt expense are based on experience and expert analysis of the credit situation. Any one of the following methods may be used:

1. A percentage of the gross sales on account for the year.
2. A percentage of the net sales on account for the year.
3. Inclusion of cash sales in either 1 or 2.
4. A percentage of outstanding accounts receivable at the end of the year. (Used by Decker Corporation.)
5. A detailed inspection of each customer's account to determine its collectibility—generally referred to as an age analysis of the accounts receivable wherein a classification is made as to amounts not yet due, those 30 days past due, 60 days past due, 90 days past due, 6 months past due, one year past due. The reserve should equal at least the sum of amounts one year past due.

Where a percentage is used, the rate is determined by experience and intelligent analysis.

Adjustment for Depreciation. The Decker Corporation purchased its building on January 1, 1940, for $80,000.00. Its estimated life from that date is 50 years with no scrap value at the end of that period. The average yearly loss is therefore $1,600.00. The adjustment which is made to record this loss is recorded as adjusting entry *f*. The expense is shown in the profit and loss statement, and the reserve is deducted from the cost of the building on the balance sheet.

Store fixtures were purchased on January 1, 1940, at a cost of $10,000.00. They have an estimated life of 10 years from that date with no scrap value at the end of that period. The annual depreciation of $1,000.00 is recorded in adjusting entry *f′*. This adjustment is similar to the previous one except that it applies to store fixtures instead of to the building.

An extended discussion of depreciation is postponed to a later chapter.

Adjusted Trial Balance. Adjustments with equal debit and credit amounts are recorded in the journal and then entered in the adjust-

ment column opposite the trial balance. It is obvious that a combination of the trial balance and the adjustment columns should result in an adjusted trial balance with equal debit and credit totals.

The next chapter describes the procedure for preparing statements from the adjusted trial balance data. After the statements have been prepared, it will be necessary to post the adjusting entries to the proper accounts in the ledger so that the ledger balances will be in final agreement with the information shown in the statements.

QUESTIONS

1. Name six classes of adjustments which must be recognized before statements may be prepared.

2. Assets may be classed as:

a. Current
b. Prepaid Expenses
c. Fixed

Liabilities may be classed as:

a. Current
b. Prepaid Incomes
c. Fixed

Under which of the above classifications do each of the following fall:

(1) Cash
(2) Merchandise Inventory
(3) Inventory of Office Supplies
(4) Prepaid Insurance Expense
(5) Accrued Salaries
(6) Prepaid Rent Income
(7) Accrued Interest on Notes Receivable

3. Why should the amount of insurance premiums paid in advance be treated as an asset?

4. Why is prepaid income considered a liability?

5. What effect has each of the following on assets, liabilities, net worth, or profit:

a. Accrued income ignored
b. Accrued expense ignored
c. Prepaid expense ignored
d. Prepaid income ignored
e. Depreciation ignored
f. Bad debt adjustment ignored

6. An adjusting entry was made on December 31, 1940, to record estimated bad debt expenses of $800.00. On January 10, 1941, a customer who owes $70.00 goes into bankruptcy and is legally excused from paying his debts.

REQUIRED:

Analysis of the adjusting entry, December 31, 1940, and the transaction of January 10, 1941.

7. On December 1, 1940, we received $500.00 cash in payment of five months' rent in advance for the use of the second floor of our store building.

a. If the transaction was recorded at that time as:

	Debit	Credit
Cash	*500.00*	
Rent Income		*500.00*

what would be the adjusting entry on December 31, 1940?

b. If the transaction was recorded at that time as:

	Debit	Credit
Cash	*500.00*	
Prepaid Rent Income		*500.00*

what would be the adjusting entry on December 31, 1940?

8. What is another term for prepaid office supplies expense?

9. Criticize the following title: Prepaid Interest.

10. You are instructed to prepare a list of actual bad debt losses of the Clancy Tool Company for the past five years. Where could this information be obtained quite easily?

11. The trial balance of the Clarkson Company included the following accounts on December 31, 1940:

	Debit	Credit
Salary Expense	3,000.00	
Office Supplies on Hand	80.00	
Prepaid Insurance	90.00	
Rent Income		150.00

At December 31, 1940, adjustments were necessary for:

a. Salaries Accrued, $50.00
b. Rent Income Paid in Advance, $60.00
c. Office Supplies Used, $50.00
d. Insurance Expired, $20.00

REQUIRED:

Adjusting entries in journal form.

12. Why is the adjustment for estimated bad debt expense made?

13. Explain why an inventory of merchandise is a current asset whereas an inventory of supplies is not a current asset but a special type of asset.

14. Describe how the following are shown in the balance sheet:

Reserve for Depreciation of Building
Reserve for Bad Debts

15. Do you prefer to record the adjustments in the journal before entering them opposite the trial balance items? Why?

16. The General Auto Corporation is a very large company and by December 31, 1940, it was found that only $8.13 interest was accrued on notes receivable. The chief accountant instructs the bookkeeper to ignore the adjustment for this item. Do you agree that it should be ignored?

CHAPTER VII

THE WORKSHEET, PREPARATION OF STATEMENTS, AND POSTING OF ADJUSTMENTS

The preparation of statements is facilitated by an additional operation which is illustrated in Fig. 16. The trial balance, adjustment, and adjusted trial balance columns of Fig. 16 are those of Fig. 15, but columns have been added to produce that important bookkeeping device which is known as the worksheet or working trial balance.

Each item in the adjusted trial balance has been extended to a *profit and loss column* or to a *balance sheet column.* To make these extensions properly, it is necessary to know the answer to one question only—Is the item used (1) in the profit and loss statement, or is it used (2) in the balance sheet or statement of change in net worth? The items used in the statement of change in net worth are generally few in number and a special column is avoided by including them in the balance sheet column. They may be segregated quite easily, however, when the statement of change in net worth, or statement of surplus, as the case may be, is to be prepared.

A credit item in the adjusted trial balance must be extended as a credit in the profit and loss column or as a credit in the balance sheet column. It cannot be extended properly to a debit column. To illustrate, sales is a credit in the adjusted trial balance and hence must be extended to the credit profit and loss column or to the credit balance sheet column. Since sales is used in the statement of profit and loss and not in the balance sheet, it should be extended to the credit profit and loss column. The procedure is quite simple.

It must be recognized that the amount of merchandise which appears in the trial balance at the end of the year is the amount which was on hand at the beginning of the year. As previously noted, changes in the merchandise asset are not recorded during the period. Hence, the inventory which appears in the trial balance is a profit and loss item and not a balance sheet item.

DECKER CORPORATION

WORK SHEET — YEAR ENDED, DECEMBER 31, 1940

Account Title	Trial Balance Debit	Trial Balance Credit	Adjustments Debit	Adjustments Credit	Adjusted Trial Balance Debit	Adjusted Trial Balance Credit	Profit and Loss Debit	Profit and Loss Credit	Balance Sheet Debit	Balance Sheet Credit
Cash	$ 5 000 –	$	$	$	$ 5 000 –	$	$	$	$ 5 000 –	$
Notes Receivable	4 000 –				4 000 –				4 000 –	
Accounts Receivable	25 000 –				25 000 –				25 000 –	
Merchandise Inventory	18 000 –				18 000 –		18 000 –			
Buildings	80 000 –				80 000 –				80 000 –	
Store Fixtures	10 000 –				10 000 –				10 000 –	
Accounts Payable		10 550 –				10 550 –				10 550 –
Notes Payable		6 000 –				6 000 –				6 000 –
Mortgage Payable		40 000 –				40 000 –				40 000 –
Capital Stock – Authorized and Issued		60 000 –				60 000 –				60 000 –
Premium on Stock		21 000 –				21 000 –				21 000 –
Sales		98 000 –				98 000 –		98 000 –		
Sales Returns	3 000 –				3 000 –		3 000 –			
Sales Allowances	1 000 –				1 000 –		1 000 –			
Purchases	60 000 –				60 000 –		60 000 –			
Purchase Returns		3 000 –				3 000 –		3 000 –		
Purchase Allowances		1 000 –				1 000 –		1 000 –		
Freight-In on Purchases	4 000 –				4 000 –		4 000 –			
Salesmen's Salaries	12 000 –		600 – b		12 600 –		12 600 –			
Advertising Expense	2 600 –				2 600 –		2 600 –			
Office Supplies Expense	100 –			25 – c'	75 –		75 –			
Telephone and Telegraph	150 –				150 –		150 –			
Miscellaneous Selling Expense	200 –				200 –		200 –			
Administrative Salaries	8 000 –		900 – b		8 900 –		8 900 –			
Light, Heat and Water	1 500 –				1 500 –		1 500 –			
Tax Expense	1 000 –				1 000 –		1 000 –			
Insurance Expense	1 200 –			900 – c	300 –		300 –			
Miscellaneous Administrative Expense	300 –				300 –		300 –			
Interest Expense	2 700 –				2 700 –		2 700 –			
Sales Discount	1 500 –				1 500 –		1 500 –			
Interest Earned		100 –		20 – a		120 –		120 –		
Purchase Discounts		600 –				600 –		600 –		
Rent Income		1 000 –	800 – d			200 –		200 –		
	$ 241 250 –	$ 241 250 –								
Accrued Interest on Notes Receivable			20 – a		20 –				20 –	
Accrued Salaries Payable				1 500 – b		1 500 –				1 500 –
Prepaid Insurance Expense			900 – c		900 –				900 –	
Prepaid Office Supplies Expense			25 – c'		25 –				25 –	
Prepaid Rent Income				800 – d		800 –				800 –
Bad Debt Expense			500 – e		500 –		500 –			
Reserve for Bad Debts				500 – e		500 –				500 –
Depreciation Expense - Building			1 600 – f		1 600 –		1 600 –			
Reserve for Depreciation - Building				1 600 – f		1 600 –				1 600 –
Depreciation Expense - Store Fixtures			1 000 – f'		1 000 –		1 000 –			
Reserve for Depreciation - Store Fixtures				1 000 – f'		1 000 –				1 000 –
Merchandise Inventory								20 000 –	20 000 –	
			$ 6 345 –	$ 6 345 –	$ 245 870 –	$ 245 870 –	$ 120 925 –	$ 122 920 –	$ 144 945 –	$ 142 950 –
Profit							1 995 –			1 995 –
							$ 122 920 –	$ 122 920 –	$ 144 945 –	$ 144 945 –

Fig. 16.

Completing the Worksheet. The student may have observed that complete information required to prepare the statements is included in the adjusted trial balance with the exception of the inventory of merchandise at December 31, 1940. This item must appear in the balance sheet of that date as a current asset and it must appear on the profit and loss statement also, where it is deducted from the sum of the beginning inventory and purchases to obtain the cost of goods sold.

To complete the worksheet, the current inventory is entered as a credit in the profit and loss column where it offsets the beginning inventory and purchases which are on the debit side. The current inventory is entered also as a debit in the balance sheet column, where it represents a current asset on the balance sheet. The current inventory is the only item which is used in both statements.

The worksheet is finally completed by footing the profit and loss and balance sheet columns. *The difference between the debit and credit totals of the profit and loss column will equal the difference between the debit and credit totals of the balance sheet column if the worksheet has been prepared correctly.* If there has been a profit, the credits will exceed the debits in the profit and loss column and the debits will exceed the credits in the balance sheet column by the amount of the profit. By reference to Fig. 16, it will be seen that the Decker Corporation operated at a profit of $1,995.00 in 1940.

The worksheet facilitates preparation of statements because it segregates the information by statements. Furthermore, if certain errors exist in the adjusting data, they may be made apparent before an attempt is made to prepare the statements.

Preparation of Statements. After the worksheet is complete, statements are prepared. Items to be used in the statement of profit and loss will be found in the profit and loss column of the worksheet. As they are inserted in the statement, it is good practice to check them on the worksheet. In this manner it becomes easier to discover any item which you may have neglected to include in the statement.

Items to be used in the balance sheet and statement of surplus will be found in the balance sheet column of the worksheet.

Statements of the Decker Corporation for 1940 have been prepared from the worksheet illustrated in Fig. 16 and are shown in Figs. 17, 18, and 19.

Posting Adjusting Entries. After the worksheet has been completed and statements have been prepared, the adjusting entries in the journal should be posted to the ledger accounts. This may necessi-

DECKER CORPORATION

BALANCE SHEET, DECEMBER 31, 1940

ASSETS			
Current Assets:			
Cash		$ 5,000.00	
Note Receivable		4,000.00	
Accounts Receivable	$25,000.00		
Less Reserve for Bad Debts	500.00		
		24,500.00	
Merchandise Inventory (at cost)		20,000.00	
Accrued Interest on Note Receivable		20.00	
			$ 53,520.00
Prepaid Expenses:			
Insurance		$ 900.00	
Office Supplies		25.00	
			925.00
Fixed Assets:			
Building (Cost)	$80,000.00		
Less Reserve for Depreciation	1,600.00		
		$78,400.00	
Store Fixtures (Cost)	$10,000.00		
Less Reserve for Depreciation	1,000.00		
		9,000.00	
			87,400.00
Total Assets			$141,845.00
LIABILITIES			
Current Liabilities:			
Notes Payable		$ 6,000.00	
Accounts Payable		10,550.00	
Accrued Salaries Payable		1,500.00	
			$ 18,050.00
Prepaid Incomes:			
Prepaid Rent Income			800.00
Fixed Liabilities:			
Mortgage Payable			40,000.00
Total Liabilities			$ 58,850.00
NET WORTH			
Capital Stock, par $100.00 each:			
600 Shares Authorized and Issued		$60,000.00	
Surplus:			
Earned	$ 1,995.00		
Paid-In (Premium on Stock)	21,000.00		
		22,995.00	
			82,995.00
Total Liabilities and Net Worth			$141,845.00

FIG. 17.

DECKER CORPORATION

Profit and Loss Statement, Year Ended December 31, 1940

Gross Sales				$98,000.00
Less: Sales Returns			$ 3,000.00	
Sales Allowances			1,000.00	4,000.00
Net Sales				$94,000.00
Cost of Goods Sold:				
Merchandise Inventory, January 1, 1940			$18,000.00	
Gross Purchases		$60,000.00		
Less: Purchase Returns	$3,000.00			
Purchase Allowances	1,000.00	4,000.00		
		$56,000.00		
Add: Freight-In		4,000.00	60,000.00	
Cost of Goods Available for Sale			$78,000.00	
Merchandise Inventory, December 31, 1940			20,000.00	58,000.00
Gross Profit				$36,000.00
Operating Expenses:				
Selling Expenses:				
Salesmen's Salaries		$12,600.00		
Advertising Expense		2,600.00		
Office Supplies Expense		75.00		
Telephone and Telegraph		150.00		
Bad Debt Expense		500.00		
Depreciation Expense—Store Fixtures		1,000.00		
Miscellaneous Selling Expenses		200.00	$17,125.00	
Administrative Expenses:				
Administrative Salaries		$ 8,900.00		
Light, Heat, and Water		1,500.00		
Tax Expense		1,000.00		
Insurance Expense		300.00		
Depreciation Expense—Building		1,600.00		
Miscellaneous Administrative Expense		300.00	13,600.00	30,725.00
Operating Profit				$ 5,275.00
Non-Operating Expense and Income:				
Expenses:				
Interest Expense		$ 2,700.00		
Sales Discount		1,500.00	$ 4,200.00	
Incomes:				
Interest Earned		$ 120.00		
Purchase Discount		600.00		
Rent Income		200.00	920.00	3,280.00
Net Profit To Earned Surplus				$ 1,995.00

Fig. 18.

tate setting up new accounts which were not in the ledger when the trial balance was taken. Accounts such as the Reserve for Bad Debts, Accrued Interest on Notes Receivable, and others were not in the Decker Corporation ledger when the trial balance was taken on December 31, 1940. If the ledger is a loose-leaf book, a new sheet may be inserted in its proper place for each new account. (Ledger accounts are generally found to be in the order in which they appear in the balance sheet and statement of profit and loss, respectively.) But if the ledger is a bound book, the new accounts must be set up on the first blank pages available, and the sequence of accounts in the ledger may become disorganized.

DECKER CORPORATION

STATEMENT OF SURPLUS

YEAR ENDED DECEMBER 31, 1940

EARNED:	
Profit for 1940	$ 1,995.00
PAID-IN:	
Premium on stock issued December 31, 1939	21,000.00
TOTAL	$22,995.00

FIG. 19.

After all adjusting entries have been posted, the ledger account balances will conform to those shown in the adjusted trial balance. The "T" accounts on the following pages illustrate the appearance of Decker Corporation's ledger after all adjustments have been posted. ("T" accounts are used for convenience. The student should visualize each account with its proper ruling and each account as being on a separate page in the ledger.) Certain of these accounts have been affected by adjustments—others have not. Only the balance of each account is shown; the transactions of the year 1940 which produced these balances are omitted as they are not related to the present discussion. For example, the Cash account is illustrated with one debit of $5,000.00. This is the balance of the account at December 31, 1940, and the various debits and credits which produced this balance are not shown. Debits and credits in the accounts which come from the adjusting entries in the journal are indicated by the letter of the

adjustment. For example, the Salesmen's Salaries account had a balance on December 31, 1940, prior to adjustment, of $12,000.00. After adjustment *b* has been posted, it has a balance of $12,600.00, which agrees with the amount shown in the adjusted trial balance and in the statement of profit and loss.

DECKER CORPORATION ACCOUNTS AFTER POSTING ADJUSTING ENTRIES

ASSET SECTION OF LEDGER

(Including Reserve Accounts)

Cash

Balance	5,000.00		

Notes Receivable

Balance	4,000.00		

Accounts Receivable

Balance	25,000.00		

Reserve for Bad Debts

		Adj. *e*	500.00

Accrued Interest on Notes Receivable

Adj. *a*	20.00		

Merchandise Inventory

Balance	18,000.00		

PREPAID INSURANCE EXPENSE

Adj. *c*	900.00		

PREPAID OFFICE SUPPLIES EXPENSE

Adj. *c′*	25.00		

BUILDING

Balance	80,000.00		

RESERVE FOR DEPRECIATION—BUILDING

		Adj. *f*	1,600.00

STORE FIXTURES

Balance	10,000.00		

RESERVE FOR DEPRECIATION—STORE FIXTURES

		Adj. *f′*	1,000.00

LIABILITY SECTION OF LEDGER

NOTES PAYABLE

		Balance	6,000.00

ACCOUNTS PAYABLE

		Balance	10,550.00

ACCRUED SALARIES PAYABLE

		Adj. *b*	1,500.00

PREPAID RENT INCOME

		Adj. *d*	800.00

MORTGAGE PAYABLE

		Balance	40,000.00

NET WORTH SECTION OF LEDGER

CAPITAL STOCK—AUTHORIZED AND ISSUED

		Balance	60,000.00

PREMIUM ON STOCK

		Balance	21,000.00

SALES

		Balance	98,000.00

SALES RETURNS

Balance	3,000.00		

SALES ALLOWANCES

Balance	1,000.00		

PURCHASES

Balance	60,000.00		

PURCHASE RETURNS

		Balance	3,000.00

PURCHASE ALLOWANCES

		Balance	1,000.00

FREIGHT-IN ON PURCHASES

Balance	4,000.00		

SALESMEN'S SALARIES

Balance	12,000.00		
Adj. *b*	600.00		

ADVERTISING EXPENSE

Balance	2,600.00		

OFFICE SUPPLIES EXPENSE

Balance	100.00	Adj. *c′*	25.00

TELEPHONE AND TELEGRAPH

Balance	150.00		

Bad Debt Expense

Adj. *e*	500.00		

Depreciation Expense—Store Fixtures

Adj. *f'*	1,000.00		

Miscellaneous Selling Expense

Balance	200.00		

Administrative Salaries

Balance	8,000.00		
Adj. *b*	900.00		

Light, Heat, and Water

Balance	1,500.00		

Tax Expense

Balance	1,000.00		

Insurance Expense

Balance	1,200.00	Adj. *c*	900.00

Depreciation Expense—Building

Adj. *f*	1,600.00		

Miscellaneous Administrative Expense

Balance	300.00		

Interest Expense

Balance	2,700.00		

Sales Discount

Balance	1,500.00		

Interest Earned

		Balance	100.00
		Adj. *a*	20.00

Purchase Discount

		Balance	600.00

Rent Income

Adj. *d*	800.00	Balance	1,000.00

QUESTIONS

1. Name the columns of the worksheet from left to right.

2. The bookkeeper has prepared the annual statements from information shown in his worksheet which he immediately submits to the board of directors. One of the directors examines the ledger a few minutes later and finds that certain expenses shown in the statement of profit and loss do not agree with the corresponding account balances in the ledger. He asks the bookkeeper for an explanation. What explanation is probable, assuming that everything is in order?

3. What differences exist between the balance sheet column of the worksheet and the balance sheet?

4. How is the current inventory of merchandise entered on the worksheet?

5. Describe the steps in the bookkeeping procedure in their proper sequence, from recording transactions in the journal as they occur to posting the adjusting entries from the journal to the ledger.

6. The list of items below are examples of descriptions which may be found on various balance sheets. Group the items which are identical, although the descriptive terms may vary.

a. Accrued Interest Earned
b. Accrued Interest on Notes Receivable
c. Accrued Interest Payable
d. Accrued Interest Expense
e. Accrued Interest Receivable
f. Accrued Interest Income
g. Accrued Interest Cost
h. Accrued Interest on Notes Payable
i. Prepaid Insurance Expense
j. Inventory of Office Supplies
k. Unexpired Insurance
l. Reserve for Depreciation
m. Prepaid Office Supplies Expense
n. Inventory of Advertising Supplies
o. Interest Collected in Advance
p. Insurance Premiums Paid in Advance
q. Prepaid Interest on Notes Receivable
r. Unused Office Supplies
s. Prepaid Interest Income
t. Advertising Supplies on Hand
u. Accumulated Depreciation
v. Interest Receivable
w. Estimate of Depreciation to Date
x. Interest Payable
y. Prepaid Advertising Expense

7. What are three classifications of assets? of liabilities?

8. The items listed below were included in an adjusted trial balance. Which should be extended to the profit and loss column of the worksheet, and which to the balance sheet column of the worksheet?

a. Accrued Interest Income
b. Unexpired Insurance
c. Reserve for Depreciation
d. Salary Expense
e. Prepaid Rental Income
f. Bad Debt Expense
g. Accrued Salary Expense
h. Reserve for Bad Debts
i. Inventory of Merchandise
j. Purchase Discount
k. Dividend Payable
l. Freight-In
m. Accounts Receivable
n. Inventory of Office Supplies
o. Prepaid Interest Expense
p. Accrued Taxes
q. Office Supplies Used
r. Insurance Expense
s. Salesmen's Salaries
t. Capital Stock, Authorized and Issued

9. The Goody Company paid $120.00 for a three-year insurance policy on January 1, 1940, and $90.00 for another three-year policy on July 1, 1940. What is the adjusting entry at December 31, 1940?

CHAPTER VIII

CLOSING PROCESS AND READJUSTING ENTRIES

The procedures described in the previous two chapters are summarized below in their proper sequence.

1. Journalize transactions as they occur from day to day.

2. Post debits and credits indicated in the journal to the proper ledger accounts.

3. Prepare a trial balance at the end of each month.

4. Record adjusting entries in the journal after the final year-end trial balance has been prepared.

5. Enter the adjusting entries opposite the final trial balance and complete the worksheet.

6. Prepare the three statements.

7. Post adjusting entries from the journal to the ledger accounts.

The succeeding steps which are necessary to complete the cycle of procedures will be described and illustrated in this chapter.

The Closing Process. After the statement of profit and loss for 1940 has been prepared, the balances in the sales, purchases, and various expense accounts at December 31, 1940, are no longer needed. They have served their purpose, and these 1940 balances should be removed so that the accounts may be utilized in recording the operations of 1941.

Furthermore, the profit for 1940 should be entered in the Earned Surplus account so that, going into 1941, it will show the amount of earned surplus at that time.

This closing process may be accomplished by recording and posting three journal entries. These entries are illustrated as they would appear in the journal of the Decker Corporation at December 31, 1940, except that the explanatory material in parentheses following each entry would be omitted. Closing entries should follow adjusting entries in the journal.

Purpose of Closing Process. It is not the purpose of closing entries to determine the profit because this was determined previously when the worksheet was completed. Also, the statement of profit and loss had been completed prior to the closing entries. The sole

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CLOSING ENTRIES AT DECEMBER 31, 1940

		CLOSING ENTRY 1			
		Profit and Loss		120,925.00	
		Merchandise Inventory			18,000.00
		Sales Returns			3,000.00
		Sales Allowances			1,000.00
		Purchases			60,000.00
		Freight-In on Purchases			4,000.00
		Salesmen's Salaries			12,600.00
		Advertising Expense			2,600.00
		Office Supplies Expense			75.00
		Telephone and Telegraph			150.00
		Miscellaneous Selling Expense			200.00
		Administrative Salaries			8,900.00
		Light, Heat, and Water			1,500.00
		Tax Expense			1,000.00
		Insurance Expense			300.00
		Miscellaneous Administrative Expense			300.00
		Interest Expense			2,700.00
		Sales Discount			1,500.00
		Bad Debt Expense			500.00
		Depreciation Expense—Building			1,600.00
		Depreciation Expense—Store Fixtures			1,000.00
		To close all profit and loss accounts which have debit balances. (When this entry is posted to the ledger, each of the accounts herein credited will be closed, that is, they will be left without a balance. The total of their balances will be set up in a summarizing account which is given the title of Profit and Loss. In order to determine which accounts should be credited in this entry, it is only necessary to refer to the debit profit and loss column of the worksheet. In fact, it is obvious that this entry is copied therefrom.)			

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Closing Entries at December 31, 1940

				Debit	Credit
		Closing Entry 2			
		Sales		98,000.00	
		Purchase Returns		3,000.00	
		Purchase Allowances		1,000.00	
		Interest Earned		120.00	
		Purchase Discounts		600.00	
		Rent Income		200.00	
		Merchandise Inventory		20,000.00	
		Profit and Loss			122,920.00
		To close all profit and loss accounts having credit balances, and to set up the current inventory of $20,000.00 as an asset. (When this entry is posted to the accounts, each of the accounts debited, with the exception of the Merchandise Inventory account, will be closed. In entry 1 the merchandise inventory of $18,000.00, which was on hand at the beginning of 1940, was closed out to the Profit and Loss account. In this entry, the new inventory is set up in its place. It is obvious that this entry was copied from the credit profit and loss column of the worksheet.)			
		Closing Entry 3			
		Profit and Loss		1,995.00	
		Earned Surplus			1,995.00
		To close the Profit and Loss account and to transfer the profit for 1940 to the Earned Surplus account. (The Profit and Loss account serves as a summarizing account so that only the final profit or loss will appear in the Earned Surplus account. In a single proprietorship, the credit in entry 3 is to the proprietor's capital account. In a partnership, the credit in entry 3 goes to each partner's drawing or capital account in the proportion specified in the partnership agreement. If there is a loss instead of a profit, entry 3 is reversed.)			

purpose of the closing process is to dispose of balances in sales, purchases, and expense accounts and to record the profit or loss for the period in the earned surplus account. The three closing entries just described do this through orthodox debit and credit procedures. It would be possible, however, to close the books as follows:

a. Remove all profit and loss accounts from the ledger and file them away in a binder.

b. Insert a new page in the ledger for the merchandise inventory (the old one having been removed) and enter directly in the account the amount of the current inventory.

c. Enter the profit, or loss, directly in the Earned Surplus account.

d. Insert new pages in the ledger on which the profit and loss items of the next period may be recorded.

The procedures above, *a* through *d*, are not orthodox and they are not recommended. They would, however, accomplish everything which the closing process is intended to accomplish, and they have been mentioned here merely to emphasize the real purpose of the closing process.

Closing Entries Posted to the Ledger. After closing entries have been entered in the journal, they are posted to the accounts. The number of the ledger page to which each amount is posted should be entered in the L.F. column of the journal as the posting proceeds. The student should observe the manner of ruling the accounts which are closed.

DECKER CORPORATION ACCOUNTS AFTER THE CLOSING ENTRIES HAVE BEEN POSTED

Asset Section of Ledger (Including Reserve Accounts)

None of the accounts in this section is affected by the closing process except the Merchandise Inventory account, which would appear as follows:

Merchandise Inventory

Dec. 31, 1940—Balance	18,000.00	Dec. 31, 1940—Closing Entry 1	18,000.00
Dec. 31, 1940—Closing Entry 2	20,000.00		

The new balance of $20,000.00 represents the asset which appears on the balance sheet at December 31, 1940.

Other accounts in this section would appear as illustrated previously.

Liability Section of Ledger

This section is not affected by the closing process and will appear as illustrated previously.

Net Worth Section of Ledger

Capital Stock—Authorized and Issued

		Dec. 31, 1940—Balance	60,000.00

Premium on Stock

		Dec. 31, 1940—Balance	21,000.00

Earned Surplus

		Dec. 31, 1940—Closing Entry 3	1,995.00

Sales

Dec. 31, 1940—Closing Entry 2	98,000.00	Dec. 31, 1940—Balance	98,000.00

Sales Returns

Dec. 31, 1940—Balance	3,000.00	Dec. 31, 1940—Closing Entry 1	3,000.00

Sales Allowances

Dec. 31, 1940—Balance	1,000.00	Dec. 31, 1940—Closing Entry 1	1,000.00

Purchases

Dec. 31, 1940—Balance	60,000.00	Dec. 31, 1940—Closing Entry 1	60,000.00

Purchase Returns

Dec. 31, 1940—Closing Entry 2	3,000.00	Dec. 31, 1940—Balance	3,000.00

Purchase Allowances

Dec. 31, 1940—Closing Entry 2	1,000.00	Dec. 31, 1940—Balance	1,000.00

Freight-In on Purchases

Dec. 31, 1940—Balance	4,000.00	Dec. 31, 1940—Closing Entry 1	4,000.00

Salesmen's Salaries

Dec. 31, 1940—Balance	12,000.00	Dec. 31, 1940—Closing Entry 1	12,600.00
Dec. 31, 1940—Adj. *b*	600.00		
	12,600.00		12,600.00

Advertising Expense

Dec. 31, 1940—Balance	2,600.00	Dec. 31, 1940—Closing Entry 1	2,600.00

Office Supplies Expense

Dec. 31, 1940—Balance	100.00	Dec. 31, 1940—Adj. *c′*	25.00
		Dec. 31, 1940—Closing Entry 1	75.00
	100.00		100.00

Telephone and Telegraph

Dec. 31, 1940—Balance	150.00	Dec. 31, 1940—Closing Entry 1	150.00

Bad Debt Expense

Dec. 31, 1940—Adj. *e*	500.00	Dec. 31, 1940—Closing Entry 1	500.00

Depreciation Expense—Store Fixtures

Dec. 31, 1940—Adj. *f'*	1,000.00	Dec. 31, 1940—Closing Entry 1	1,000.00

Miscellaneous Selling Expense

Dec. 31, 1940—Balance	200.00	Dec. 31, 1940—Closing Entry 1	200.00

Administrative Salaries

Dec. 31, 1940—Balance	8,000.00	Dec. 31, 1940—Closing Entry 1	8,900.00
Dec. 31, 1940—Adj. *b*	900.00		
	8,900.00		8,900.00

Light, Heat, and Water

Dec. 31, 1940—Balance	1,500.00	Dec. 31, 1940—Closing Entry 1	1,500.00

Tax Expense

Dec. 31, 1940—Balance	1,000.00	Dec. 31, 1940—Closing Entry 1	1,000.00

Insurance Expense

Dec. 31, 1940—Balance	1,200.00	Dec. 31, 1940—Adj. *c*	900.00
		Dec. 31, 1940—Closing Entry 1	300.00
	1,200.00		1,200.00

Depreciation Expense—Building

Dec. 31, 1940—Adj. *f*	1,600.00	Dec. 31, 1940—Closing Entry 1	1,600.00

Miscellaneous Administrative Expense

Dec. 31, 1940—Balance	300.00	Dec. 31, 1940—Closing Entry 1	300.00

Interest Expense

Dec. 31, 1940—Balance	2,700.00	Dec. 31, 1940—Closing Entry 1	2,700.00

Sales Discount

Dec. 31, 1940—Balance	1,500.00	Dec. 31, 1940—Closing Entry 1	1,500.00

Interest Earned

Dec. 31, 1940—Closing Entry 2	120.00	Dec. 31, 1940—Balance	100.00
		Dec. 31, 1940—Adj. *a*	20.00
	120.00		120.00

Purchase Discount

Dec. 31, 1940—Closing Entry 2	600.00	Dec. 31, 1940—Balance	600.00

Rent Income

Dec. 31, 1940—Adj. *d*	800.00	Dec. 31, 1940—Balance	1,000.00
Dec. 31, 1940—Closing Entry 2	200.00		
	1,000.00		1,000.00

Profit and Loss

Dec. 31, 1940—Closing Entry 1	120,925.00	Dec. 31, 1940—Closing Entry 2	122,920.00
Dec. 31, 1940—Closing Entry 3	1,995.00		
	122,920.00		122,920.00

Post-Closing Trial Balance. Errors of omission and transposition may occur when the adjusting and closing entries are recorded in the accounts. As it is desirable to discover such errors immediately, a post-closing trial balance should be prepared. This trial balance consists of a list of all accounts in the ledger with such debit or credit balances as may exist after the closing process has been completed. The accounts which have been closed will not appear in the post-closing trial balance. Their balances are contained, in effect, in the Earned Surplus account. The post-closing trial balance at December 31, 1940, for the Decker Corporation is illustrated in Fig. 20.

DECKER CORPORATION

POST-CLOSING TRIAL BALANCE

YEAR ENDED DECEMBER 31, 1940

	Debit	*Credit*
Cash	$ 5,000.00	
Notes Receivable	4,000.00	
Accounts Receivable	25,000.00	
Reserve for Bad Debts		$ 500.00
Accrued Interest on Notes Receivable	20.00	
Merchandise Inventory	20,000.00	
Prepaid Insurance Expense	900.00	
Prepaid Office Supplies Expense	25.00	
Building	80,000.00	
Reserve for Depreciation—Building		1,600.00
Store Fixtures	10,000.00	
Reserve for Depreciation—Store Fixtures		1,000.00
Notes Payable		6,000.00
Accounts Payable		10,550.00
Accrued Salaries Payable		1,500.00
Prepaid Rent Income		800.00
Mortgage Payable		40,000.00
Capital Stock—Authorized and Issued		60,000.00
Premium on Stock		21,000.00
Earned Surplus		1,995.00
Totals	$144,945.00	$144,945.00

FIG. 20.

Readjusting (or Reversing) Entries. *On the first day of the new period,* it is customary to reverse each adjusting entry which involved an accrual of income or expense. The purpose of a readjusting entry

can best be explained by showing the Interest Earned account and the Accrued Interest on Notes Receivable account as they appear in the ledger of the Decker Corporation on December 31, 1940, after the books have been closed and just prior to the beginning of business on January 1, 1941.

INTEREST EARNED

Dec. 31, 1940—Closing Entry 2	120.00	Dec. 31, 1940—Balance	100.00
		Dec. 31, 1940—Adj. *a*	20.00
	120.00		120.00

ACCRUED INTEREST ON NOTES RECEIVABLE

Dec. 31, 1940—Adj. *a*	20.00		

Adjustment *a* recognized an accrual of interest income on a note dated December 1, 1940, but which is not due until January 30, 1941. When the note is collected on January 30, 1941, Decker Corporation will receive $40.00 interest. One-half the $40.00 has been properly recorded as income in 1940 and the other half is income of 1941. The receipt of the $40.00 on January 30, 1941, may be recorded by debiting cash for $40.00 and crediting interest earned for $20.00, which is the amount of income applicable to 1941, and accrued interest on notes receivable for $20.00, which is the amount previously taken up as income in 1940.

It is inconvenient, however, to analyze each receipt of interest to see if part of it should be credited to a receivable rather than to income. This is especially true if there are several notes on which interest was accrued at the previous closing date. The inconvenience can be avoided by making a *readjusting* entry on the first day of the new period as follows:

Readjusting Entry a of Decker Corporation

January 1, 1941

	Debit	*Credit*
Interest Earned	*20.00*	
Accrued Interest on Notes Receivable		*20.00*
To reverse adjustment a		

When the readjusting entry is posted, the accounts will appear as below:

INTEREST EARNED

Dec. 31, 1940—Closing Entry 2	120.00	Dec. 31, 1940—Balance	100.00
		Dec. 31, 1940—Adj. *a*	20.00
	120.00		120.00
Jan. 1, 1941—Readjusting entry	20.00		

ACCRUED INTEREST ON NOTES RECEIVABLE

Dec. 31, 1940—Adj. *a*	20.00	Jan. 1, 1941—Readjusting entry	20.00

When the $40.00 is received on January 30, 1941, the entire amount may be credited to interest earned. The prior debit of $20.00 to interest earned, from the readjusting entry, will automatically reduce the credit of $40.00 to the amount which was actually earned in 1941.

This discussion of accrued interest on notes receivable applies, in principal, to adjustments for all types of accrued income and accrued expense.

The Decker Corporation would make a readjusting entry to reverse adjustment *b* also.

Readjusting Entry b of Decker Corporation

January 1, 1941

	Debit	Credit
Accrued Salaries Payable	*1,500.00*	
Salesmen's Salaries		*600.00*
Administrative Salaries		*900.00*
To reverse adjustment b		

A readjusting entry is always the exact reverse of the adjusting entry. When this entry is posted, the accounts will appear as below:

SALESMEN'S SALARIES

Dec. 31, 1940—Balance	12,000.00	Dec. 31, 1940—Closing Entry 1	12,600.00
Dec. 31, 1940—Adj. *b*	600.00		
	12,600.00		12,600.00
		Jan. 1, 1941—Readjusting entry	600.00

Administrative Salaries

Dec. 31, 1940—Balance	8,000.00	Dec. 31, 1940—Closing Entry 1	8,900.00
Dec. 31, 1940—Adj. *b*	900.00		
	8,900.00		8,900.00
		Jan. 1, 1941—Readjusting entry	900.00

Accrued Salaries Payable

Jan. 1, 1941—Readjusting entry	1,500.00	Dec. 31, 1940—Adj. *b*	1,500.00

When weekly salaries are paid on Saturday, January 4, 1941, they may be debited to the expense accounts, respectively. The prior credits in the expense accounts, from the readjusting entry, will automatically reduce these debits to the correct measure of expense in 1941.

Readjusting Entries for Prepaid Items. Adjustments for accrued income or accrued expense should always be reversed. *Adjustments involving prepaid income or prepaid expense, however, are not always reversed.* The rules to be followed may be stated as follows:

1. If the adjusting entry set up a prepaid expense or prepaid income item which did not exist in the trial balance, the adjusting entry should be reversed.

2. If the trial balance contained a prepaid expense or prepaid income item and the adjusting entry merely increased or reduced the amount shown in the trial balance, the adjusting entry should not be reversed.

Following these rules, the Decker Corporation, on January 1, 1941, should reverse adjustments *c*, *c′*, and *d*.

The adjusting and readjusting entries for prepaid income or prepaid expense depend on the manner in which the prepayment was originally recorded in the accounts. To illustrate, consider two methods of recording the transaction described below.

Transaction: On January 1, 1937, we paid a premium of $300.00 for a fire insurance policy covering our building for three years.

Record of the Transaction—January 1, 1937

Case I			*Case II*		
Insurance Expense	*300.00*		*Prepaid Insurance Expense*	*300.00*	
Cash		*300.00*	*Cash*		*300.00*

In Case I the entire premium is charged to an expense, which is quite pessimistic, of course. In Case II no expense is recorded because the entire amount is set up as a prepayment; the asset cash has been exchanged merely for the asset prepaid insurance expense. The entry made in Case II appears to be the better, and it is the better, as will be evident later. *It is advisable to record a prepayment in a prepaid account when the prepayment extends beyond the end of the fiscal period.* Unfortunately, perhaps, transactions are not always recorded in this manner, and it is essential to understand the procedure in either case.

Adjusting Entry at December 31, 1937

Case I			*Case II*		
Prepaid Insurance Expense	*200.00*		*Insurance Expense*	*100.00*	
Insurance Expense ...		*200.00*	*Prepaid Insurance Expense*		*100.00*

Irrespective of how the transaction was recorded originally, the adjusted data must be the same. In both cases the balance sheet at December 31, 1937, must show a prepaid expense asset of $200.00, and the statement of profit and loss for 1937 must show insurance expense of $100.00. Because the original entries differed, the adjusting entries will differ, but the accounts after adjustment must reflect the same facts.

Closing Entry at December 31, 1937

Case I			*Case II*		
Profit and Loss........	*100.00*		*Profit and Loss*........	*100.00*	
Insurance Expense...		*100.00*	*Insurance Expense*...		*100.00*

This entry will close the Insurance Expense account in both cases. The account would not be closed separately but would be included in the entry closing all expense, purchases and other accounts, as illustrated previously in this chapter. (Closing Entry 1.)

Condition of Accounts after Posting the Closing Entries of December 31, 1937

Case I

PREPAID INSURANCE EXPENSE

Debit	Credit
1937 Dec. 31. Adj.— 200.00	

Case II

PREPAID INSURANCE EXPENSE

Debit	Credit
1937 Dec. 1 300.00	1937 100.00—Adj. Dec. 31

INSURANCE EXPENSE

1937				1937
Dec. 1	300.00	200.00	Adj.	Dec. 31
		100.00	Close	Dec. 31
	300.00	300.00		

INSURANCE EXPENSE

1937				1937
Dec. 31 Adj.	100.00	100.00	Close	Dec. 31

The accounts in each case are similar at this stage. In each case the Insurance Expense account is closed and the Prepaid Insurance Expense account has a debit balance of $200.00. Although Cases I and II started out on a different basis, they are brought into agreement by the adjusting and closing entries. To be consistent in Case I, however, it will be necessary to make a readjusting entry on January 1, 1938, which will place the $200.00 back into the expense account and remove the balance in the prepaid account.

Readjusting Entry at January 1, 1938

Case I

Insurance Expense 200.00
Prepaid Insurance
Expense 200.00

Case II

(None required)

After the readjusting entry has been posted, the accounts in Case I are back on the original basis of non-recognition of prepayments.

Adjusting Entry at December 31, 1938

Case I

Prepaid Insurance
Expense 100.00
Insurance Expense ... 100.00

Case II

Insurance Expense 100.00
Prepaid Insurance
Expense 100.00

Closing Entry at December 31, 1938

Case I

Profit and Loss 100.00
Insurance Expense ... 100.00

Case II

Profit and Loss 100.00
Insurance Expense ... 100.00

Readjusting Entry at January 1, 1939

Case I

Insurance Expense 100.00
Prepaid Insurance
Expense 100.00

Case II

(None required)

Adjusting Entry at December 31, 1939

Case I			Case II		
(None required)			*Insurance Expense*	*100.00*	
			Prepaid Insurance Expense		*100.00*

Closing Entry at December 31, 1939

Case I			Case II		
Profit and Loss	*100.00*		*Profit and Loss*	*100.00*	
Insurance Expense ...		*100.00*	*Insurance Expense* ...		*100.00*

Readjusting Entry at January 1, 1940

Case I	Case II
(None required—no adjusting entry to reverse)	*(None required)*

The advantage of Case II over Case I is apparent. Case II sets up the prepayment in the accounts when made and proceeds to write the prepayment off to expense as the insurance premium expires. No readjusting entries are required for Case II. In Case I, the prepayment is charged to expense, and this necessitates setting up the prepayment at the end of the period. To be consistent, however, and to keep Case I from becoming identical with Case II, the adjusting entry in Case I must be reversed.

The prepayment of any expense or income should be set up as a prepaid item if the prepayment extends beyond the end of the next closing date. This conforms to the procedure of Case II which avoided readjusting entries. If a prepayment does not extend beyond the next closing date, it should be charged to expense or credited to income immediately. Otherwise an adjusting entry will be required to write it off to expense or to income at the end of the period.

Provision for Depreciation and Bad Debts. Adjusting entries for depreciation and bad debts are not reversed. The expense factor has been closed to profit and loss, and the credits to the reserves should accumulate.

THE COMPLETE BOOKKEEPING CYCLE

This chapter completes the description of basic bookkeeping procedure. The student should study the sequence of the procedures described below to obtain a proper perspective of the discussion in this and previous chapters. The first three are monthly procedures and

the last seven are generally annual procedures which are identified with the year-end closing process.

Monthly Procedures

1. Journalize transactions as they occur from day to day.
2. Post debits and credits indicated in the journal to the proper ledger accounts.
3. At the end of each month, and after all transactions have been journalized and posted, determine the balance of each account and prepare a trial balance.

Annual Procedures

4. Record adjusting entries in the journal preparatory to closing the books.
5. Enter adjustments in the adjustment column opposite the final trial balance and complete the worksheet.
6. Prepare the statements.
7. Post the adjusting entries from the journal to the ledger accounts.
8. Enter closing entries in the journal and post them to the accounts.
9. Prepare a post-closing trial balance.
10. Enter readjusting entries in the journal on the first day of the new period and post them to the accounts. (The procedure repeats itself year after year.)

Interim Statements. Statements may be prepared at the end of any month without disturbing the accounts by omitting step 4, performing steps 5 and 6, and omitting the remaining steps. These statements are termed interim statements but the information shown in the accounts, unaffected by adjustments which are entered directly on the worksheet, will not directly support such statements. Interim statements are of value to management and investors, however, and frequently are prepared monthly or quarterly.

QUESTIONS

1. Prepare a transcript of the Interest Earned and Accrued Interest Earned accounts after the following entries have been posted thereto:

Jan. 1. 1938.	Received a 6-month 6% note for $3,000.00 from a customer on account.
July 1, 1938.	Collected for note due today plus interest.
Nov. 1, 1938.	Received a 6-month 6% note for $4,000.00 from a customer on account.
Dec. 31, 1938.	Adjustment for accrued interest on note.
Dec. 31, 1938.	Closing entry.
Jan. 1, 1939.	Readjusting entry, if necessary.
Feb. 1, 1939.	Received a 12-month 6% note for $2,000.00 from a customer on account.

May 1, 1939. Collected note due today, plus interest.
Dec. 1, 1939. Received a 2-month 6% note for $1.000.00 from a customer on account.
Dec. 31, 1939. Adjusting entry for interest accrued on the two active notes.
Dec. 31, 1939. Closing entry.
Jan. 1, 1940. Readjusting entry, if necessary.
Feb. 1, 1940. Collected notes and interest due today.

2. In the Kelly Company laborers are paid every Saturday. In December 1932 the first Saturday comes on the seventh and the payroll amounts to $500.00. The same amount was paid each week and a transcript of the Wages account on December 31, 1932, appears as follows:

Wages

1932			
Dec. 7	Cash.................	500.00	
Dec. 14	Cash.................	500.00	
Dec. 21	Cash.................	500.00	
Dec. 28	Cash.................	500.00	

On December 31, 1932, wages had accrued in the amount of $167.00. On January 4, 1933, wages of $500.00 were paid.

REQUIRED:

Show how the account would appear after the following journal entries had been posted:

Adjusting entry at December 31, 1932
Closing entry at December 31, 1932
Readjusting entry at January 1, 1933
Payment of wages at January 4, 1933

How much of the $500.00 paid on January 4, 1933, is expense for 1932 and how much is expense for 1933?

3. Show how the Rent Income account and the Prepaid Rent Income account would appear after posting the following entries:

Dec. 1, 1939. Leased the second floor of our building for 3 years at $1,200.00 per year. Received $3,600.00 in advance. (Ignore interest factor.) (Credit Prepaid Rent Income.)
Dec. 31, 1939. Adjusting entry and closing entry.
Jan. 1, 1940. Readjusting entry, if necessary.
Dec. 31, 1940. Adjusting entry and closing entry.
Jan. 1, 1941. Readjusting entry, if necessary.
Dec. 31, 1941. Adjusting entry and closing entry.
Jan. 1, 1942. Readjusting entry, if necessary.
Dec. 1, 1942. Did not renew lease—plan to use second floor for own operations.
Dec. 31, 1942. Adjusting entry and closing entry.

4. Work question 3 on the assumption that the receipt of $3,600.00 cash on December 1, 1939, was credited to Rent Income.

5. Prepare a transcript of the Office Supplies Used and the Office Supplies on Hand accounts after the following entries have been posted thereto:

Jan. 8, 1938. Purchased office supplies such as stationery, ink, paper clips, etc., for $600.00 cash. (Debit Office Supplies on Hand.)
Sept. 6, 1938. Purchased additional office supplies for $300.00 cash.
Dec. 31, 1938. An inventory taken on this date disclosed that office supplies on hand, at cost, amounted to $386 00. (The difference between the amount purchased and the amount on hand had been used.) An adjusting entry was made for this.
Dec. 31, 1938. Closing entry.
Jan. 1, 1939. Readjusting entry, if necessary.
May 5, 1939. Purchased additional office supplies for $300.00.
Dec. 8, 1939. Purchased additional office supplies for $100.00.
Dec. 31, 1939. Inventory of Unused Office Supplies amounted to $270.00, and the adjusting entry was made.
Dec. 31, 1939. Closing entry.
Jan. 1, 1940. Readjusting entry, if necessary.

6. Work question 5 on the assumption that the purchases of office supplies were debited to Office Supplies Used.

7. Prepare a transcript of the Accounts Receivable, Bad Debt Expense, and Reserve for Bad Debts accounts after the entries described below have been posted thereto:

Jan. 1, 1938. Started business.
During 1938. Sales on account for 1938 totaled $60,000.00. Collections from customers on account for 1938 totaled $42,000.00.
Dec. 31, 1938. It is estimated that 2% of charge sales are never collected. An adjustment is made for this.
Dec. 31, 1938. Closing entry.
Jan. 1, 1939. Readjusting entry, if necessary.
During 1939. Sales on account for 1939 totaled $80,000.
Collections on account in 1939 amounted to $75,000.00.
One customer who owed $300.00 died, and his estate could pay nothing to its creditors. The account was written off.
Dec. 31, 1939. Since 1939 sales on account totaled $80,000.00, it was estimated that 2% of this amount, or $1,600.00, would never be collected. An adjusting entry was made.
Jan. 1, 1940. Readjusting entry, if necessary.
During 1940. Sales on account for 1940 totaled $75,000.00.
Collections on account in 1940 amounted to $78,000.00.
Customers' accounts in the amount of $1,560.00 had to be written off.
Dec. 31, 1940. 2% of 1940 sales on account were added to the reserve for bad debts.
Dec. 31, 1940. Closing entry.
Jan. 1, 1941. Readjusting entry, if necessary.

(1) How would the Accounts Receivable and Reserve for Bad Debts appear in the balance sheet at December 31, 1940?

(2) What is the total amount of bad debt expense which has been charged to profit and loss in 1938, 1939, and 1940?

(3) What is the total amount of actual bad debt losses during the three years?

(4) What does the credit balance in the reserve at December 31, 1940, represent?

8. Work question 7 but adjust the reserve to equal 5% of the outstanding accounts receivable instead of increasing the reserve by 2% of sales.

9. Prepare a transcript of the Delivery Equipment, Depreciation Expense on Delivery Equipment, and Reserve for Depreciation of Delivery Equipment accounts after the following entries have been posted thereto:

Jan. 1, 1938. Purchased a truck for cash at a cost of $2,400.00.
July 1, 1938. Purchased truck #2 for cash at a cost of $2,400.00.
Dec. 31, 1938. Depreciation for 1938 based on an estimated life of 5 years with a scrap or trade-in value of $400.00 on each truck.

Cost	*$2,400.00*
Scrap Value ...	*400.00*
Loss	*$2,000.00*
Annual Loss =	*$ 400.00 on each truck*

Adjusting entry for depreciation made.

Dec. 31, 1938. Closing entry.
Jan. 1, 1939. Reversing entry, if necessary.
Dec. 31, 1939. Adjusting entry.
Dec. 31, 1939. Closing entry.
Jan. 1, 1940. Reversing entry, if necessary.
Dec. 31, 1940. Adjusting entry.
Dec. 31, 1940. Closing entry.
Jan. 1, 1941. Reversing entry, if necessary.

How would Delivery Equipment and its Reserve appear on the balance sheet at December 31, 1940?

CHAPTER IX

SPECIAL JOURNALS

In general, there are four basic types of transactions which occur most frequently: [1]

1. Receipts of cash
2. Payments of cash
3. Sales on account
4. Purchases on account

While all transactions can be recorded in one journal, there are many advantages to be obtained by using a special journal for each basic type of transaction. The chart on page 128 illustrates the use of four special journals and a fifth journal for transactions of a general, or sundry, nature which cannot be recorded in one of the special journals.

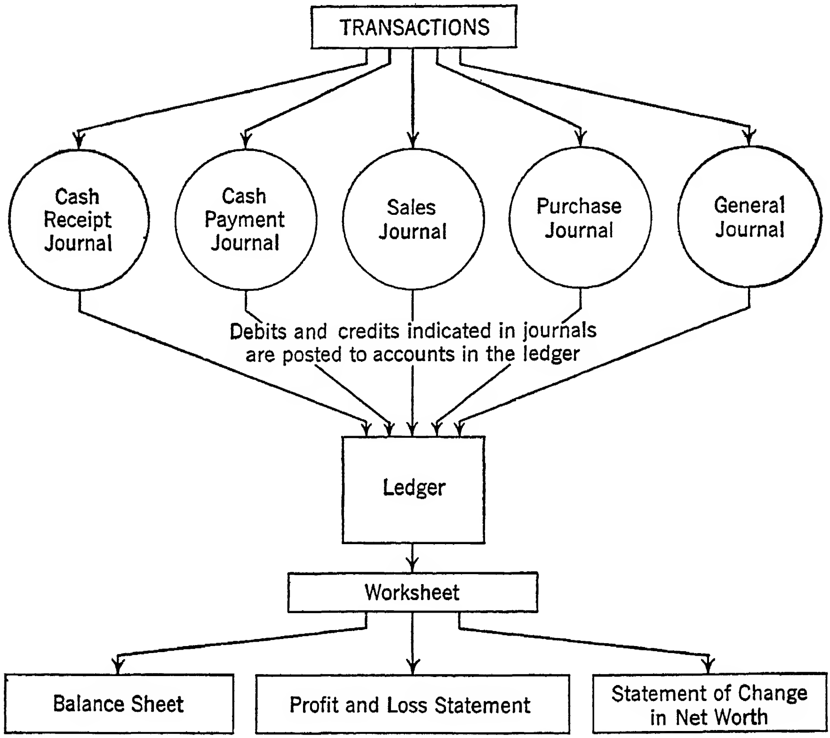
Additional advantages are obtained by a further segregation of transactions within each basic type. To illustrate:

1. Receipts of cash
   a. from customers on account
   b. from sundry sources
2. Payments of cash
   a. to creditors on account
   b. for sundry purposes
3. Sales on account
   a. sales of department A
   b. sales of department B
   c. sales of department C
4. Purchases on account
   a. purchases of department A
   b. purchases of department B
   c. purchases of department C

This further segregation of transactions within each basic type is obtained by a columnar arrangement within each journal.

[1] The nature of operations would determine this classification. The four types listed here apply chiefly to concerns whose principal function is to buy and sell merchandise.

CHART ILLUSTRATING THE USE OF SPECIAL JOURNALS



COLUMNAR JOURNALS OF THE WINSLOW COMPANY

Columnar Cash Receipts Journal. Winslow Company receives cash principally from customers on account. Receipts from other sources occur occasionally. Customers generally take advantage of the 2% discount which is allowed for prompt payment so that a debit to cash, a debit to sales discount, and a credit to accounts receivable must be recorded again and again. The columnar arrangement of their journal (Fig. 21) provides special columns in which these particular debit and credit items may be recorded with a minimum of effort. Receipts from sundry sources require a debit to cash, of course, but the credit may be to any one of various and sundry accounts, depending on the nature of the transaction. The amount of the credit is entered in the sundry column, but the particular account to be credited must be designated.

H. R. Jones paid his bill of $150.00 on January 2, 1940, receiving a discount of $3.00 so that Winslow Company actually received only $147.00. The transaction was fully recorded and explained on one line. *Credit columns are at the left merely because there is an advantage in having the accounts receivable credit column next to the customer's name.* This advantage will be described later.

Winslow Company — Page 1

CASH RECEIPTS JOURNAL
FOR
JANUARY 1940

Date		Explanation	Credits: Accounts Receivable	Credits: Sundry L. F.	Credits: Sundry Account	Credits: Sundry Amount	Debits: Sales Discount	Debits: Cash
1940								
Jan.	2	H. R. Jones	150.00				3.00	147.00
	3	C. D. Smith	600.00				12.00	588.00
	3	Long note date Dec. 2, 1939		2	Notes Receivable	1,000.00		
		Interest on above note		40	Interest Earned	5.00		1,005.00
	4	Acre Company	2,050.00				41.00	2,009.00
	6	Dillon Company	30.00					30.00
	9	S. T. Harper	800.00				16.00	784.00
	14	Winter and Son	250.00				5.00	245.00
	15	Ashley Farms	316.00					316.00
	17	Rice and Company		44	Rental Income	320.00		320.00
	18	Best Sample Corporation	1,050.00				21.00	1,029.00
	19	Larew Drygoods, Inc.	135.00					135.00
	21	Sharpstone Drug Company	100.00				2.00	98.00
	22	Haller Bakery	180.00				3.60	176.40
	30	R. S. Merriam	730.00				14.60	715.40
		Totals	6,391.00			1,325.00	118.20	7,597.80
			(3)				(42)	(1)

FIG. 21.

All transactions, except that of the third and seventeenth, are similar to the receipt from Jones. In some few cases, however, customers were not allowed discounts.

A note receivable of $1,000.00 with $5.00 interest was collected on January 3. This is an example of cash received from a sundry source, and, while the debit to cash of $1,005.00 may be recorded merely by entering that amount in the cash column, the titles of the accounts to be credited must be written in the sundry column. One other sundry receipt was recorded on the seventeenth.

Posting from the cash receipts journal:

a. Debit postings:

(1) The total of the cash column was posted to the Cash account, page 1, of the ledger		$7,597.80
(2) The total of the sales discount column was posted to the Sales Discount account, page 42, of ledger ..		118.20
Total debits		$7,716.00

b. Credit postings:

(1) The total of the accounts receivable column was posted to the Accounts Receivable account, page 3, of ledger		$6,391.00
(2) Each item in the sundry column was posted separately.		
To Notes Receivable account, page 2, of ledger	$1,000.00	
To Interest Earned account, page 40, of ledger	5.00	
To Rental Income, page 44, of ledger	320.00	1,325.00
Total credits		$7,716.00

Considerable time and effort are saved, of course, by posting the total of a column rather than the many separate amounts in that column. Such postings cannot be made until the end of the month, and for that reason they are called monthly postings. The figures in parentheses, under totals, are posting references which indicate that the item has been posted and also where it has been posted. The total of the cash column has been posted as a debit to the Cash account which would be found on page 1 of the ledger.

It should be observed that the total of the sundry column was not posted. The individual amounts in this column were posted separately, and an L.F. column is provided for posting references. The Notes Receivable account has been credited with $1,000.00, and that account would be found on page 2 of the ledger. Postings of this type should be made from day to day because there is no advantage to be gained by waiting until the end of the month. The bookkeeper should do what he can each day to avoid increasing his month-end duties. Postings which can be made from day to day are termed current, or daily, postings.

It is customary to test the equality of debit and credit columns and, for that reason alone, the sundry column was totaled.

Columnar Cash Payment Journal. The majority of Winslow Company's cash payments are made to creditors on account. Discounts are generally allowed when these payments are made promptly, and special columns are provided in which to record repeated debits to accounts payable, credits to purchase discount, and credits to cash. Disbursements are occasionally made for sundry purposes, such as

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CASH PAYMENT JOURNAL
for
January 1940

Date		Explanation	Debits				Credits	
			Accounts Payable	Sundry			Purchase Discount	Cash
				L. F.	Account	Amount		
1940								
Jan.	3	Perry Company	300.00				6.00	294.00
	3	Lovell Company	100.00				2.00	98.00
	5	Everclean Corporation	600.00					600.00
	8	For stationery		54	Office Supply Exp.	20.00		20.00
	10	Perry Company	1,200.00				24.00	1,176.00
	11	Burns Corporation	60.00					60.00
	12	Everclean Corporation	100.00				2.00	98.00
	15	Perry Company	200.00				4.00	196.00
	15	Repairs to adding machine		56	Repair Expense	10.00		10.00
	16	Lovell and Company	240.00				2.40	237.60
	17	Burns Corporation	280.00				5.60	274.40
	18	Perry Company	900.00				18.00	882.00
	19	Gas and Oil		50	Delivery Expense	15.00		15.00
	20	Graham Company	170.00					170.00
	23	Burns Corporation	90.00					90.00
	24	Everclean Corporation	200.00				2.00	198.00
	28	Bell Telephone Company		55	Tele. and Tele.	20.00		20.00
	30	Light and Power Company		59	Light and Gas	30.00		30.00
	31	January Payroll		57	Office Salaries	820.00		820.00
		Totals	4,440.00			915.00	66.00	5,289.00
			(15)				(43)	(1)

FIG. 22.

monthly salaries, but a special column in which to record the debit to salaries is certainly not justified in this case because no posting effort would be saved. If, however, salaries were paid weekly there would be five debits to salaries in some months. A special column for salary expense would save four postings in that event because one monthly posting of the total could be made instead of five separate daily postings. In general, however, special columns should be avoided

unless they are justified by a substantial saving in the number of postings. Too many special columns produce large and unwieldy journals.

Figure 22 illustrates the cash payment journal of the Winslow Company for January, 1940.

Postings were made as follows:

Debits

Accounts Payable, page 15 (monthly posting)	$4,440.00
Office Supply Expense, page 54 (current posting)	20.00
Repair Expense, page 56 (current posting)	10.00
Delivery Expense, page 50 (current posting)	15.00
Telephone and Telegraph, page 55 (current posting) ...	20.00
Light and Gas, page 59 (current posting)	30.00
Office Salaries, page 57 (current posting)	820.00
TOTAL DEBITS	$5,355.00

Credits

Purchase Discount, page 43 (monthly posting)	$ 66.00
Cash, page 1 (monthly posting)	5,289.00
TOTAL CREDITS	$5,355.00

Columnar Sales Journal. The Winslow Company has three departments, A, B, and C. An analysis of sales by departments is provided by its columnar sales journal for January 1940 illustrated in Fig. 23.

Postings were made from this journal as follows:

Debits

Accounts Receivable, page 3 (monthly posting)	$5,925.00
TOTAL DEBITS	$5,925.00

Credits

Sales, Department A, page 31 (monthly posting)	$2,240.00
Sales, Department B, page 32 (monthly posting)	2,610.00
Sales, Department C, page 33 (monthly posting)	1,075.00
TOTAL CREDITS	$5,925.00

WINSLOW COMPANY — Page 1

SALES JOURNAL
for
January, 1940

Date		Customer	Inv. No.	Debit: Accounts Receivable	Credits: Sales A	Credits: Sales B	Credits: Sales C
1940							
Jan.	2	H. R. Jones	1	150.00	150.00		
	2	Acre Company	2	2,100.00	600.00	800.00	700.00
	3	S. T. Harper	3	800.00		800.00	
	5	Winter and Son	4	250.00			250.00
	8	Best Sample Corporation	5	1,050.00	1,000.00	50.00	
	12	Sharpstone Drug Company	6	200.00	80.00	120.00	
	14	Haller Bakery	7	180.00	180.00		
	16	Hardy Stores	8	60.00		60.00	
	18	L. R. Reed	9	25.00			25.00
	22	R. S. Merriam	10	730.00		700.00	30.00
	26	J. W. Murphy	11	150.00	70.00	60.00	20.00
	28	H. R. Jones	12	20.00		20.00	
	30	S. T. Harper	13	210.00	160.00		50.00
		Totals................		5,925.00	2,240.00	2,610.00	1,075.00
				(3)	(31)	(32)	(33)

Fig. 23.

Columnar Purchase Journal. The Winslow Company obtains a similar analysis from its columnar purchase journal illustrated in Fig. 24.

Postings were made from this journal as follows:

Debits

Purchases, Department A, page 36 (monthly posting) ..	$2,950.00
Purchases, Department B, page 37 (monthly posting) ..	1,480.00
Purchases, Department C, page 38 (monthly posting) ..	1,790.00
Total Debits	$6,220.00

Credits

Accounts Payable, page 15 (monthly posting)	$6,220.00
TOTAL CREDITS	$6,220.00

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PURCHASE JOURNAL
for
January, 1940

Date		Creditor	Order No.	Credits: Accounts Payable	Debits: Purchases A	Debits: Purchases B	Debits: Purchases C
1940							
Jan.	2	Perry Company	1	1,200.00	800.00	400.00	
	3	Everclean Corporation	2	100.00		100.00	
	5	Perry Company	3	200.00			200.00
	7	Lovell and Company	4	560.00	240.00		320.00
	9	Burns Corporation	5	280.00		280.00	
	10	Perry Company	6	900.00	600.00		300.00
	11	Graham Company	7	170.00		170.00	
	15	Burns Corporation	8	90.00	90.00		
	16	Everclean Corporation	9	200.00		200.00	
	20	Keokuk Company	10	1,600.00	900.00	200.00	500.00
	25	Lakeside Laboratory	11	840.00	320.00	50.00	470.00
	30	Lovell and Company	12	80.00		80.00	
		Totals................		6,220.00	2,950.00	1,480.00	1,790.00
				(15)	(36)	(37)	(38)

FIG. 24.

Columnar General Journal. Sales and purchase returns and allowances comprise a majority of the entries in Winslow Company's general journal, Fig. 25. A special column for the returns and allowances of each department did not appear to be justified, but a code column was added to indicate the department concerned. At the end of the month, the sales and purchase returns and allowance columns were analyzed to obtain a departmental segregation of the column totals. These departmental totals were posted to the proper ledger accounts.

Postings were made from this journal as follows:

Debits

Sales Returns and Allowances, Dept. A, page 34-A (monthly posting)	$ 110.00
Sales Returns and Allowances, Dept. B, page 34-B (monthly posting)	100.00
Accounts Payable, page 15 (monthly posting)	1,090.00
Notes Receivable, page 2 (current posting)	100.00
Delivery Equipment, page 6 (current posting)	1,200.00
TOTAL DEBITS	$2,600.00

Credits

Purchase Returns and Allowances, Dept. C, page 39-C (monthly posting)	$ 390.00
Purchase Returns and Allowances, Dept. B, page 39-B (monthly posting)	200.00
Accounts Receivable, page 3 (monthly posting)	310.00
Notes Payable, trade, page 16 (current posting)	500.00
Notes Payable, other, page 17 (current posting)	1,200.00
TOTAL CREDITS	$2,600.00

Adjusting, closing, and readjusting entries are recorded in the sundry debit and credit columns of the general journal and would appear as previously illustrated except that the columnar arrangement differs.

Posting References in the Ledger Account. Ledger accounts should show the journal from which each debit and credit was posted. The symbols listed below are commonly used:

Cash Receipts Journal	CR
Cash Payments Journal	CP or CD (Cash Disbursements)
Sales Journal	S
Purchase Journal	P
General Journal	J or G

To illustrate, the Accounts Payable account of the Winslow Company at January 31, 1940, after all postings have been made, would appear as shown below:

ACCOUNTS PAYABLE a/c No. 15

1940					1940				
Jan.	31		CP	4,440.00	Jan.	1	Assumed balance	√	3,800.00
	31		J	1,090.00		31		P	6,220.00

WINSLOW COMPANY

Page 1

GENERAL JOURNAL
for
January, 1940

Debits							Credits			
Dept.	Sales R. and A.	Accounts Payable	Sundry	L.F.	Explanation	L.F.	Sundry	Accounts Receivable	Purchases R. and A.	Dept.
					3.					
A	50.00				Sales Returns and Allowances					
					Acre Company			50.00		
					To record allowance on invoice #2 because of defective merchandise.					
					8.					
		320.00			Lovell Company					
					Purchase Returns and Allowances				320.00	C
					To record return of mdse. on order #4					
					12.					
			100.00	2	Notes Receivable					
					A. S. James			100.00		
					To record a 60-day 6% note dated Jan. 11, 1940, from James on account.					
					14.					
		500.00			Conwell and Son					
					Notes Payable, trade	16	500.00			
					To record a 30-day 6% note dated Jan. 14, 1940, to Conwell and Son on account.					
					18.					
B	100.00				Sales Returns and Allowances					
					Sharpstone Drug Company			100.00		
					To record return by S. Drug Company on invoice #6					

					22.					
		200.00			Keokuk Company					
					Purchase Returns and Allowances				200.00	B
					Return on order #10					
					28.					
			1,200.00	6	Delivery Equipment					
					Notes Payable, other	17	1,200.00			
					1-Ton truck from Lawrence Automobile Company. Note for 90 days at 6%, dated 1/28/40, in payment.					
					30.					
A	60.00				Sales Returns and Allowances					
					S. T. Harper			60.00		
					Return on invoice #13					
					30.					
		70.00			Lakeside Lab.					
					Purchase Returns and Allowances				70.00	C
					Allowance on order #11					
	210.00	1,090.00	1,300.00		January totals		1,700.00	310.00	590.00	
		(15)						(3)		
A	110.00								390.00	C
	(34–A)								(39–C)	
B	100.00								200.00	B
	(34–B)								(39–B)	

Fig. 25.

Cash Sales. The recording of cash sales presents a problem. It is desirable to record all cash receipts in the cash receipts journal but it is also desirable to record all sales in the sales journal. There are many acceptable solutions to the problem, but it is sufficient to describe only one of them here.

A special column is added in the cash receipts journal for credits to cash sales. Debits to cash will go in the cash column as usual. At the end of the month, however, the total of the cash sales column is not posted.

A special column is added to the sales journal for debits to cash sales. Credits to the departmental sales will be entered as usual. At the end of the month, however, the total of the cash sales column is not posted.

This requires duplication of entry, but it has the advantage of showing all cash receipts in the one journal and all sales in the other. The method may also be illustrated as follows:

In Cash Receipts Journal

Debit cash	60	
Credit cash sales		60√

In Sales Journal

Debit cash sales	60√	
Credit sales A		10
sales B		20
sales C		30

The check marks indicate the items which are not posted—one offsets the other. Posting the unchecked items will record the receipts in the cash account and the sales in the proper departmental sales accounts.

"Split" Transactions. Assume that a building is purchased at a cost $50,000.00 on the following terms—20% cash payment and a mortgage note for the balance. This transaction involves the debit and credits shown below:

	Debit	*Credit*
Building	*50,000.00*	
Cash		*10,000.00*
Mortgage Payable		*40,000.00*

The credit of $10,000.00 to cash should be recorded in the cash payments journal, but it may be difficult to record the remainder of the transaction there also unless a special column is provided for sundry credits as well as sundry debits.

The cash payment journal of the Winslow Company, see Fig. 22, does not provide a sundry credit column, however, and under these

conditions the bookkeeper would have a choice of one of three methods.

Choice 1. Record the transaction completely in the general journal as follows:

GENERAL JOURNAL

Debits			L.F.	Explanation	L.F.	Credits		
Sales R. & A.	Accounts Payable	Sundry				Sundry	Accounts Receivable	Purchases R. & A.
		50,000.00		Building				
				Cash............		10,000.00		
				Mortgage Payable		40,000.00		
				To record purchase of building.				

This choice violates the rule that all cash payments should be recorded in the cash payments journal, and is, perhaps, the least desirable.

Choice 2. That part of the debit to building which is offset by the credit to mortgage payable may be recorded in the general journal and that part which is offset by a credit to cash may be recorded in the cash payment journal.

GENERAL JOURNAL

Debits			L.F.	Explanation	L.F.	Credits		
Sales R. & A.	Accounts Payable	Sundry				Sundry	Accounts Receivable	Purchases R. & A.
		40,000.00		Building				
				Mortgage Payable.......		40,000.00		
				To record purchase of building. See Cash Payments J. for $10,000.00 cash payment to complete the debit to building for total cost of $50,000.00.				

CASH PAYMENT JOURNAL

Date		Explanation	Debits				Credits	
			Accounts Payable	Sundry			Purchases Discount	Cash
				L.F.	Account	Amount		
		Cash payment on bldg.			Building	10,000.00		10,000.00

This choice is acceptable, but there may be objections to splitting the transaction between two journals. That is, the complete transaction is not immediately observable.

Choice 3. The entire transaction may be recorded in the general journal, and in addition the cash payment of $10,000.00 may be recorded in the cash payment journal. Obviously, this duplicates the debit to building and the credit to cash to the extent of $10,000.00, and this duplication must not get into the ledger accounts.

GENERAL JOURNAL

Debits						Credits		
Sales R. & A.	Accounts Payable	Sundry	L. F.	Explanation	L. F.	Sundry	Accounts Receivable	Purchases R. & A.
		50,000.00		Building				
				Cash	√	10,000.00		
				Mortgage Payable		40,000.00		
				To record purchase of bldg.				

As the credit to cash is recorded in the general journal, a check mark is placed in the L.F. column to indicate that this credit is not to be posted. The debit to building of $50,000.00 and the credit to mortgage payable of $40,000.00 will be posted, however.

CASH PAYMENT JOURNAL

Date		Explanation	Debits				Credits	
			Accounts Payable	Sundry			Purchases Discount	Cash
				L.F.	Accounts	Amount		
		Cash paid on bldg.		√	Building	10,000.00		10,000.00

As the debit to building is recorded in the cash payment journal, a check mark is placed in the L.F. to indicate that this debit will not be posted. The credit to cash of $10,000.00 will be posted, eventually, as it will be included in the total of the cash column which is posted as a credit to cash at the end of the month.

This overcomes the objection to prior methods illustrated but it is sometimes difficult for the student to understand.

The apparent complications of choices 1, 2, or 3 may be avoided by inserting a sundry credit column in the cash payment journal.

CASH PAYMENT JOURNAL

Date	Explanation	Debits				Credits				
		Accts. Pay.	Sundry			Sundry			Purchases Discount	Cash
			L. F.	Account	Amount	L. F.	Account	Amount		
	Purchase bldg.			Building	50,000.00		Mtg. Payable	40,000.00		10,000.00

No objection to this method can be made except that it introduces additional columns into the cash payment journal which are seldom used.

Variations in Type and Design of Journals. If a great number of sales returns and allowances are made, a special journal is justifiable. This would be termed the sales returns and allowances journal, and every transaction recorded therein would represent a debit to sales returns and allowances [1] and a credit to accounts receivable. At the end of each month the total of this journal would be posted as a debit to the Sales Returns and Allowances account and also as a credit to the Accounts Receivable account. The general journal would be relieved of such entries, and special columns provided therein for such purposes could be omitted. The same procedure may be followed in respect to purchase returns and allowances.

It should be recognized that the design and installation of accounting systems constitute a highly specialized field in themselves. It would be a tremendous task to illustrate every type of columnar journal which is used in business today because each enterprise employs a system adapted to its own peculiar needs. The purpose of this chapter is to emphasize the principles and advantages of columnar journals in general, and those herein illustrated are not to be considered as standard in any way.

[1] In this event special columns could be used conveniently for the returns and allowances of each department. The journal would be similar to the sales or purchase journals in form.

Departmental Profit and Loss Statements. A departmentalization of sales and purchases provides the information necessary for a computation of departmental gross profits. A departmental profit and loss statement is illustrated in Fig. 26. Of course, inventory figures

WINSLOW COMPANY

PROFIT AND LOSS STATEMENT, MONTH ENDED JANUARY 31, 1940

	Dept. A	*Dept. B*	*Dept. C*	*Total*
SALES	$x xxx xx	$x xxx xx	$x xxx xx	$xx xxx xx
Returns and Allowances	xx xx	xx xx	xx xx	xxx xx
NET SALES	$x xxx xx	$x xxx xx	$x xxx xx	$xx xxx xx
COST OF GOODS SOLD				
Inventory, Jan. 1, 1940	$ xxx xx	$ xxx xx	$ xxx xx	$ x xxx xx
Purchases	$ xxx xx	$ xxx xx	$ xxx xx	$ x xxx xx
Returns and Allowances	xx xx	xx xx	xx xx	xxx xx
Net Purchases	$ xxx xx	$ xxx xx	$ xxx xx	$ x xxx xx
Cost of Goods Available for Sale	$ xxx xx	$ xxx xx	$ xxx xx	$ x xxx xx
Inventory, Jan. 31, 1940	xxx xx	xxx xx	xxx xx	x xxx xx
Cost of Goods Sold	$ xxx xx	$ xxx xx	$ xxx xx	$ x xxx xx
GROSS PROFIT	$ xxx xx	$ xxx xx	$ xxx xx	$ x xxx xx
OPERATING EXPENSES				
Selling				$ xxx xx
Administrative				xxx xx
Total Operating Expenses				$ xxx xx
OPERATING PROFIT				$ xxx xx
NON-OPERATING INCOME AND EXPENSE, NET				$ xx xx
NET PROFIT				$ xxx xx

FIG. 26.

must be obtained for each department. Operating expenses may be departmentalized if desired by setting up expense accounts for each department. Expenses which can be charged definitely against a certain department are known as the direct expenses of that department. For example, the salaries of sales clerks in the department

are usually direct departmental expenses. On the other hand, certain expenses such as taxes, light, executive salaries, and administrative expenses in general are indirect departmental expenses as the proportion of these expenses chargeable to any one department must be estimated. In some cases a departmentalization of operating expenses, particularly the administrative group, is meaningless because the majority of expenses are indirect in nature and their allocation to departments by various methods of estimating is unsatisfactory.

Customer Accounts. The Accounts Receivable account serves its purpose by providing one item of information for the balance sheet. In addition, however, it is necessary to keep a separate account with each customer. *These additional accounts are kept outside the ledger,* but they are governed by the same general rule which is applied to the Accounts Receivable account. That is, when a sale of merchandise on account occurs, a notation of the date, invoice number, and amount is made in the debit side of a customer account. When cash is received on account, a notation of the date and amount is made on the credit side of a customer account.

The amount owing by a customer will show as a debit balance in his account. At the end of the month a list is prepared showing the name of each customer and the amount he owes. The total of this list should agree with the balance of the Accounts Receivable account.

Customer accounts are kept in a loose-leaf book or file in alphabetical order. This book or file is called the *customers ledger* and, to avoid confusion, the ledger containing the Accounts Receivable account is called the *general ledger.*

The Accounts Receivable account in the general ledger is a controlling account. It controls the customers ledger in the sense that the total of all balances in the customers ledger must agree with the balance of the Accounts Receivable account. All items posted to the Accounts Receivable control account must be entered in the customers ledger also, but in greater detail. To illustrate:

Sales Journal of Winslow Company (See Fig. 23.)

Each amount in the Accounts Receivable column must be posted as a debit to the particular customer's account indicated. A check mark may be made to the left of the invoice number column of the journal to indicate that the posting has been made. A check mark is sufficient because the customer accounts are arranged alphabetically and references to page numbers are unnecessary. The postings should be made daily.

At the end of the month the total of this column was posted to the Accounts Receivable control account. If all postings are made without error, the debits entered in the customers ledger will agree in total with the one monthly debit made to the Accounts Receivable control.

Cash Receipts Journal of Winslow Company (*See Fig. 21.*)

Each amount in the accounts receivable column must be posted as a credit to the particular customer's account indicated. A check mark may be made in the L.F. column on the right to indicate that the item has been posted to the customers ledger.

At the end of the month, the total of this column was posted as a credit to the Accounts Receivable account. If all postings have been made without error, the credits entered in the customers ledger will agree, in total, with the one monthly debit made to the Accounts Receivable account.

General Journal of Winslow Company (*See Fig. 25.*)

Each amount in the credit accounts receivable column of this journal must be posted as a credit to the particular customer's account indicated. A check mark may be made in the L.F. column when the posting is made.

The credits made to the customers ledger should agree, in total, with the credit made to the Accounts Receivable account at the end of the month.

There were no entries in the remaining journals which affected accounts receivable.

The account with H.R. Jones would appear in the customers ledger as illustrated:

Credit Limit XR
Rating A2

H. R. Jones

126 Fuller St., City

1940				1940			
Jan. 1	Assumed balance	√	85.00	Jan. 2		CR	150.00
2	Inv. # 1	S	150.00				
28	Inv. #12	S	20.00				

A list of customer accounts prepared on January 31, 1940, would show $105.00 receivable from H.R. Jones.

Creditor Accounts. The same procedure is followed in reference to accounts payable.[1] In addition to the Accounts Payable account in the general ledger a separate account should be kept with each creditor so that statements received from them may be checked. Creditor accounts are kept in alphabetical arrangement in a loose-leaf book or file which is known as the *creditors ledger.* A list of creditors and the amount owing to each should be prepared at the end of each month. The total of this list must equal the balance of the Accounts Payable account. In other words, *the Accounts Payable account in the general ledger controls the creditors ledger.* Accounts with each creditor are governed by the same rules of entry as are applied to the Accounts Payable account. When a purchase of merchandise on account occurs, a record of the date, invoice number, and amount is made in the credit side of a creditor account. When payment to a creditor is made the date and amount are recorded in the debit side. The amount owing to each creditor will show as a credit balance in his account. The account with Lovell and Company in the creditors ledger of Winslow Company would appear as illustrated:

LOVELL AND COMPANY

118 NORTH ST., N. Y.

1940				1940			
Jan. 3		CP	100.00	Jan. 1	Assumed balance	√	100.00
8	Return on #4	J	320.00	7	Order # 4	P	560.00
16		CP	240.00	30	Order #12	P	80.00

A list of creditors prepared on January 31, 1940, would show $80.00 owing to Lovell and Company.

Postings to *personal* accounts in the creditors or customers ledger should not be confused with postings to the *impersonal* accounts in the general ledger. The former are purely supplemental and do not affect the equality of debits and credits as reflected in the trial balance.

[1] Generally, only trade accounts payable are so treated.

QUESTIONS

1. Analyze each of the transactions listed below and state the journal in which each transaction should be recorded. Assume that you are using the journals of the Winslow Company. A sale of merchandise in Dept. B for $500.00 on account to Jones is analyzed below as an illustration of the type of answer desired.

Sales Journal

Accounts Receivable (Jones)	*500.00*	
Sales—Dept. B		*500.00*

a. Purchased merchandise for Dept. A on account for $200.00.
b. Collected $100.00 from Jones on account. No discount allowed.
c. Collected $98.00 from Smith on account. A discount of $2.00 was allowed and customer was credited with $100.00.
d. Paid $50.00 to Lock Co. on account. No discount allowed.
e. Borrowed $1,000.00 from bank on a 60-day, 6% note.
f. Paid note due bank at maturity.
g. Purchased Delivery Truck for $1,000.00 cash.
h. Purchased office equipment of $500.00 on account.
i. Purchased building for $50,000.00 and paid $20,000.00 cash down and signed a mortgage note for the balance.
j. Dept. B sale on account returned (in part) by Jones—$30.00.
k. Sold Dept. A merchandise for cash—$100.00.
l. Dept. A cash sale returned—$20.00.
m. Paid clerk's salary—$30.00.
n. Recorded adjustment at end of period for accrued interest on notes receivable—$36.00.
o. Recorded closing entry #2. (Assume any accounts and amounts.)
p. Received note from Jones to apply on account—$370.00.

2. A new bookkeeper fails to make any postings from the Sales Journal for June. Would the trial balance at the end of June balance?

3. What is the general purpose of the L.F. columns in the journals?

4. Describe the probable nature of the debit and credit items in the account shown below and state the journal from which each item was posted.

Accounts Payable (Trade)

1941					1941				
Jan.	31		J5	2,091.18	Jan.	1	Balance		14,220.00
	31		C.P.	13,164.90		31		P	12,118.10

5. Describe the nature of the complete entry involved in each of the debit and credit items in the following account.

Interest Income

Date			F.	Amount	Date			F.	Amount
1940					1940				
Dec.	31		J6	35.00	Dec.	10		C.R.	25.00
						31		J5	10.00
				35.00					35.00
1941					1941				
Jan.	1		J7	10.00	Jan.	30		C.R.	15.00
Dec.	31		J9	40.00	June	6		C.R.	30.00
					Dec.	31		J8	5.00
				50.00					50.00
1942									
Jan.	1		J10	5.00					

6. Post from the journal shown below to the general ledger accounts concerned. (Use "T" accounts in your solution.) What postings other than to the general ledger should be made?

Cash Receipts Journal

Date		Explanation	Credits					Debits	
			Acct. Rec.	Sundry				Sales' Disc.	Cash
				L. F.	Account	Amount	Cash Sales		
1941									
1	6	Jones	160.00					3.20	156.80
	10	Smith	200.00					4.00	196.00
	15	Note due today			Notes Receivable	1,000.00			
	15	Interest on above note			Interest Income	10.00			1,010.00
	26	Larry	50.00						50.00
	28	Cash sale					60.00		60.00
	29	Rent on 2nd floor for Jan.			Rent Income	50.00			50.00
	29	Cash sale					30.00		30.00
	29	Harknes	100.00					2.00	98.00
	30	Return of mdse.			Purchase Returns	116.00			116.00
	31	Cash sale					20.00		20.00
			510.00			1,176.00	110.00	9.20	1,786.80

7. The Darcy Retail Furniture Company has three departments: (1) Living Room Furniture, (2) Bedroom Furniture, and (3) Dining Room-Kitchen Furniture and Equipment. They sell both for cash and on account. All items are marked at a certain figure, and a 2% discount is allowed and recorded on cash sales and on receipts on account if received within 10 days of the sale. Only occasionally is cash received from some source other than cash sales or on account.

Purchases are made solely on account and discounts are generally allowed and taken on these payments.

Salesmen and office clerks are paid weekly. Many cash payments are made during each month for freight and cartage in on purchases. Other than that most cash payments are to creditors on account.

After a customer's account becomes more than 30 days old, he is requested to sign a 30-day 6% note (this being part of the terms of sale). Many customers do this and pay off the notes and interest in small monthly amounts.

REQUIRED:

Make a detailed and specific list of the columns which should be in (*a*) the cash receipts journal and (*b*) the cash payments journal.

8. The customers ledger of the Mather Company appeared as shown below on January 31, 1941. Show how the controlling Accounts Receivable account in the general ledger should appear at that date. Assume that Winslow and Company's journals are used.

ADAMS

Jan. 1	Balance	100.00	Jan. 5		CR	100.00
10	S	50.00	15		CR	50.00
18	S	160.00				

HARVEY

Jan. 20	S	180.00	Jan. 22		CR	100.00

CARSON

Jan. 1	Balance	200.00	Jan. 10	(Note)	J	200.00
18	S	100.00	19		CR	100.00
20	S	60.00	22	(Return)	J	20.00

LOVELL

Jan. 1	Balance	30.00	Jan. 5		CR	30.00
29	S	110.00	30		CR	70.00

FERRIS

Jan. 16	S	180.00				

MANNING

Jan. 18	S	118.00				

GLADDEN

Jan. 1	Balance	60.00	Jan. 5	(Return)	J	60.00

SCHALK

Jan. 1	Balance	20.00	Jan. 20		CR	80.00
5	S	60.00				
19	S	40.00				

PART III

CHAPTER X

MANUFACTURER'S STATEMENTS AND ACCOUNTS

Previous chapters describe those statements which are utilized by a retail enterprise. The purpose of this chapter is to explain several variations necessitated by the manufacturing process.

Manufacturer's Profit and Loss Statement. The retailer buys finished goods ready for sale and charges their cost to the Purchases account. The manufacturer buys raw material and converts it into finished goods by additional expenditures for labor, power, and other costs. Therefore, the cost of producing finished goods ready for sale displaces the cost of purchases, and the resulting variation in the profit and loss statement is presented in the following comparison:

Retail Enterprise

Sales		$10,000.00
Cost of Goods Sold:		
Inventory of Merchandise, January 1	$ 6,000.00	
Purchases	10,000.00	
	$16,000.00	
Inventory of Merchandise, January 31	7,000.00	9,000.00
Gross Profit		$ 1,000.00
Operating Expenses:		
Administrative	$ 400.00	
Selling	500.00	900.00
Operating Profit		$ 100.00

Manufacturing Enterprise

Sales		$10,000.00
Cost of Goods Sold:		
Inventory of Finished Goods, January 1	$ 6,000.00	
Cost of Goods Finished	10,000.00	
	$16,000.00	
Inventory of Finished Goods, January 31	7,000.00	9,000.00
Gross Profit		$ 1,000.00
Operating Expenses:		
Administrative	$ 400.00	
Selling	500.00	900.00
Operating Profit		$ 100.00

The only differences to be noted are contained in the Cost of Goods Sold section as follows:

1. "Cost of Goods Finished" substituted for "Purchases" (the one essential difference).
2. "Finished Goods" substituted for "Merchandise" (merely a change in terminology).

CORBIN MANUFACTURING COMPANY

STATEMENT OF COST OF GOODS FINISHED *

JANUARY 1, 1940, TO JANUARY 31, 1940

DIRECT MATERIAL:			
Raw Material Inventory, January 1, 1940..		$60,000.00	
Raw Material Purchases.................	$20,500.00		
Returned Purchases..................	500.00		
	$20,000.00		
Freight-In..........................	1,000.00	21,000.00	
		$81,000.00	
Less Raw Material Inventory, January 31, 1940................................		68,000.00	
Direct Material Used..................			$13,000.00
DIRECT LABOR..........................			10,000.00
MANUFACTURING EXPENSES................			6,000.00
TOTAL MANUFACTURING COST.............			$29,000.00
Add Work in Progress Inventory, January 1, 1940............................			6,000.00
			$35,000.00
Deduct Work in Progress Inventory, January 31, 1940........................			7,000.00
COST OF GOODS FINISHED (TO PROFIT AND LOSS STATEMENT)....................			$28,000.00

* Sometimes referred to as the manufacturing statement.

FIG. 27.

Computation of the "Cost of Goods Finished." The retailer obtains the cost of salable goods added to his stock directly from the Purchases account, but the manufacturer must compute this from information contained in various accounts. The computation is shown as the statement of cost of goods finished, Fig. 27. It should be

observed that the result of this computation ($28,000.00) is carried to the profit and loss statement, Fig. 28.

CORBIN MANUFACTURING COMPANY

PROFIT AND LOSS STATEMENT

JANUARY 1, 1940 TO JANUARY 31, 1940

SALES....................................		$50,000.00
Returns and Allowances..........................		2,000.00
NET SALES....................................		$48,000.00
COST OF GOODS SOLD:		
Inventory of Finished Goods, January 1, 1940.......	$210,000.00	
Cost of Goods Finished (from Statement of Cost of Goods Finished)............................	28,000.00	
	$238,000.00	
Inventory of Finished Goods, January 31, 1940......	207,000.00	31,000.00
GROSS PROFIT..................................		$17,000.00
OPERATING EXPENSES (ETC. The remainder of this statement is identical with that of a retailer's).		

FIG. 28.

Explanation of the Statement of Cost of Goods Finished. There are three elements of cost in the manufacturing process:

a. Material
b. Labor
c. Manufacturing Expense ("Burden" or "Overhead")

a. Material. Material is considered a direct manufacturing cost if:

1. It enters into and becomes an integral part of the finished product.
2. The cost of such material per unit of finished product is significant and conveniently ascertained.

Consider a factory producing wood desks for offices. Three classes of material are used in the production process:

1. Lumber and hardware.
2. Glue, nails, stain, and varnish.
3. Lubricating oil and grease for machines, such as rip-saw, band-saw and planer; small tools used, such as files, hand planes, brushes, hammers, chisels, etc.; sandpaper; and lavatory supplies for the factory washroom.

Materials in the first group are direct, as they are the principal materials contained in the finished desk. Furthermore, the cost of lumber and hardware per desk is significant and convenient to determine.

On the other hand, materials in the second group are indirect, and their cost is included in manufacturing expense. Although they are contained in the finished product, the cost per desk is small and inconvenient to determine. Frequently it is difficult to make a definite distinction between direct and indirect material. A decision in this respect should be guided by the opinion and practice adopted in each industry as most expedient.[1]

Materials in the third group are undoubtedly indirect as they are not a part of the finished desk. They are, however, essential to the operation of the factory, and their cost is included in manufacturing expense, generally as factory supplies.

The Corbin Manufacturing Company's statement, Fig. 27, illustrates the computation of direct material cost. (Observe the similarity to the retailer's computation of the cost of goods sold.) Accounts must be maintained in the ledger, to supply the information needed, as follows:

Inventory of Direct Material
Direct Material Purchases
Direct Material Purchase Returns and Allowances
Freight-In on Direct Material Purchases

The cost of indirect material is included in manufacturing expense. (The Corbin Manufacturing Company's statement shows $6,000.00 as the manufacturing expense for January 1940. See Fig. 29 for a detailed list of the expenses comprising this total.) Indirect material cost is obtained by the method which is employed in the determination of office supplies expense. For example, when stain is purchased the Stain on Hand account is debited. At the end of the period an inventory is taken to determine the stain on hand at that time. An adjusting entry is then made to reduce the balance of the Stain on Hand account to the inventory figure, and to record the cost of stain used as follows:

	Debit	*Credit*
Stain Expense (Used)	*xx*	
Stain on Hand		*xx*

[1] The National Association of Cost Accountants publishes information on the classifications adopted by the principal types of industries.

b. Labor. Direct labor is that which is applied directly to the finished product. Referring to the production of desks the following classification may be made:

1. Rip-saw, band-saw, and planing machine operators; assemblers, finishers.
2. Watchmen, millwrights, sweepers, superintendent and foremen, time-keepers, crane operators, and miscellaneous factory labor.

The first group of labor is direct, as these men actually work on the desks. They cut and plane the lumber into pieces of required shape and size, assemble these pieces into a rough desk, and apply the stain, varnish, and hardware.

CORBIN MANUFACTURING COMPANY

Schedule of Manufacturing Expense

January 1, 1940, to January 31, 1940

Indirect Material and Supplies:		
Glue, Nails, Stain, and Varnish	$500.00	
Miscellaneous Supplies	50.00	
Lubricating Oil and Grease	150.00	
Tools	300.00	$1,000.00
Indirect Labor		2,000.00
Heat, Light, and Power		1,200.00
Repairs		800.00
Miscellaneous		100.00
Taxes, Factory		200.00
Insurance, Factory		400.00
Depreciation:		
Factory Buildings	$200.00	
Machinery	100.00	300.00
Total Manufacturing Expense		$6,000.00

These items may be listed under manufacturing expense in the Statement of Cost of Goods Finished, but the use of a schedule in support of a total is a good practice.

Fig. 29.

On the other hand, the second group is indirect, and the cost of such labor is included in manufacturing expense. (See Fig. 29.) The work is essential to the operation of the factory but is not applied directly to the construction of desks. In some cases it is difficult to make a definite distinction between direct and indirect labor.

The ledger contains an account for each of the two types of labor. These accounts are debited as the men are paid and are adjusted at the end of the period for the wages accrued.

c *Manufacturing Expense.* All costs of operating the factory other than direct material and direct labor are included in this classification. A total of manufacturing expense is shown in Fig. 27. Fig. 29 is a schedule of the items comprising that total. All these expenses are necessary to the operation of the factory. Depreciation, insurance, and tax expenses relate only to those fixed assets which are used in the manufacturing process such as machinery and factory building.[1] Expenses of this nature in relation to the general administrative office building (frequently located miles from the factory) are to be included in administrative expenses as they do not enter into the cost of goods finished.

Manufacturing expenses may be considered as fixed or variable. Those which do not vary appreciably with changes in the operating activity of the factory are considered fixed. Examples of fixed manufacturing expenses are taxes, insurance, and depreciation. Regardless of whether the factory is idle or operating at 90% of capacity, these costs will remain about the same. On the other hand, certain expenses fluctuate in proportion to changes in operating activity. For example, in an idle factory the power cost will be practically nothing. As the factory goes into operation, the power cost will increase in proportion to activity.

The classification of fixed and variable is important in the analysis and interpretation of costs. It is a question of degree, as no one expense may be absolutely fixed or variable in the sense that there is perfect positive or negative correlation with operating activity. In general, the following are considered variable:

Indirect Labor
Indirect Material and Supplies
Heat, Light, and Power
Repairs[2]

Manufacturing Cost. The cost of operating the factory is termed the manufacturing cost and includes the cost of direct material used, the cost of direct labor incurred, and manufacturing expense. In

[1] In the event that the factory building is not owned, rent expense takes the place of taxes, insurance, and depreciation in reference to the building.

[2] Many repairs, such as the relining of a furnace, replacement of large flywheels, resurfacing of factory floor, etc., are made when the factory is idle. As a result, repair expense may increase when other variable expenses decrease.

reference to the Corbin Manufacturing Company, the manufacturing cost for January 1940 was determined as follows:

Direct Material Used	\$13,000.00
Direct Labor	10,000.00
Manufacturing Expense	6,000.00
Manufacturing Cost	\$29,000.00

The manufacturing cost is not the cost of goods finished, however. Consideration must be given to the partially finished goods in the factory at the beginning and end of the period. When the manufacturing process requires more than one day to make a finished product, it follows that there will be certain work in progress at the end of each period. Their value may be taken as the cost of bringing them to their present partially completed state. This would include direct material cost, direct labor cost, and a proportionate share of the manufacturing expense. The methods employed in the determination of these costs for each product, regardless of its stage of completion, involve cost accounting principles and procedures which are described in a later chapter. It must be assumed for the present at least that the value of work in progress can be determined satisfactorily by appraisal.

Cost of Goods Finished. The Corbin Manufacturing Company produced in January finished goods costing \$28,000.00. In addition, there was an inventory of work in progress on January 31 costing \$7,000.00. The factory produced, therefore, \$35,000.00 worth of products (finished and unfinished) in January. This value was created by adding to the work in progress at January 1 further expenditures during January for material, labor, and other costs. The work in progress inventory on January 1 amounted to \$6,000.00, and the total expenditures for January (manufacturing cost) were \$29,000.00. The following equation expresses the equality which must exist:

Work in progress inventory, January 1, + Manufacturing cost of January = Cost of goods finished in January + Work in progress inventory, January 31.

In general, the unknown factor in this equation is the cost of goods finished. (The inventories may be ascertained and the manufacturing cost is recorded in the accounts.) Transposing, the following equation results:

Manufacturing cost of January + Work in progress inventory, January 1, − Work in progress inventory, January 31, = Cost of goods finished in January.

(Reference should be made to the Corbin Manufacturing Company's statement, Fig. 27, to observe the method of showing this computation in the statement of cost of goods finished.)

Manufacturer's Balance Sheet. In general, the manufacturer's balance sheet varies but slightly from the retail balance sheet. Variations occur under three classes of assets as follows:

Current. Instead of one inventory of merchandise the manufacturer has three inventories: (1) raw materials; (2) work in progress; (3) finished goods.

Prepaid Expenses. In addition to office supplies on hand, the manufacturer has indirect material and factory supplies on hand.[1]

Fixed Assets. One of the most valuable assets owned by a manufacturing enterprise is the plant and equipment, or factory building and machinery. These do not appear, of course, on the retailer's statement.

Statement of Change in Net Worth. Both retail and manufacturing enterprises may be single proprietorships, partnerships, or corporations. Hence, no characteristic variations occur in this statement.

MANUFACTURER'S WORKSHEET—ADJUSTING AND CLOSING ENTRIES

The Toolsteel Manufacturing Company, operated by R. D. Murphy as a single proprietorship, makes small cutting tools and sells them to wholesale hardware dealers. Financial statements are prepared annually, and on December 31, 1940, a trial balance was taken and recorded in the worksheet, Fig. 30. Adjustments were entered in the journal from the following information:

A. Depreciation for year:

Factory Building	4% of cost
Machinery	5% of cost
Office Building	2% of cost
Office Equipment	10% of cost

B. Estimated bad debt expense for year	$3,310.00
C. Indirect material on hand	$4,000.00

[1] Indirect material and factory supplies may be shown as current assets.

D. Factory supplies on hand		$2,000.00
E. Office supplies on hand		$ 500.00
F. Coal on hand		$ 200.00
G. Wages Accrued, December 31, 1940:		
Sales Department	$ 500.00	
Administrative Department	600.00	
Direct Factory Labor	1,400.00	
Indirect Factory Labor	700.00	$3,200.00
H. Accrued Taxes, December 31, 1940:		
Sales Department	$ 100.00	
Administrative Department	200.00	
Factory	1,200.00	$1,500.00
I. Expired Insurance:		
Sales Department	$ 100.00	
Administrative Department	300.00	
Factory	1,700.00	$2,100.00
J. Accrued Interest Expense, December 31, 1940		$ 300.00

GENERAL JOURNAL

ADJUSTING ENTRIES, DECEMBER 31, 1940	*L. F.*	*Debit*	*Credit*
A			
Depreciation, Factory Building		1,200.00	
Depreciation, Machinery		1,250.00	
Depreciation, Office Building		400.00	
Depreciation, Office Equipment		400.00	
Reserve for Depreciation			3,250.00
To record depreciation for the year ended Dec. 31, 1940, as follows:			
Factory Building..... 4% of cost			
Machinery........... 5% of cost			
Office Building....... 2% of cost			
Office Equipment.....10% of cost			
B			
Bad Debt Expense		3,310.00	
Reserve for Bad Debts			3,310.00
To record estimated bad debt expense for the year 1940.			
C			
Indirect Materials Used		10,000.00	
Indirect Material			10,000.00
To adjust the Indirect Material account to the inventory of $4,000.00 and record the cost of material used.			

General Journal

Adjusting Entries, December 31, 1940	L. F.	Debit	Credit
D			
Factory Supplies Used		6,000.00	
Factory Supplies			6,000.00
To adjust the Factory Supplies account to the inventory of $2,000.00 and record the cost of supplies used.			
E			
Office Supplies Used		300.00	
Office Supplies			300.00
To adjust the Office Supplies account to the inventory of $500.00 and to record the cost of supplies used.			
F			
Coal on Hand		200.00	
Heat, Light, and Power			200.00
To set up the value of coal on hand and adjust the Heat, Light, and Power expense.			
G			
Direct Labor		1,400.00	
Salesmen's Salaries		500.00	
Administrative Salaries		600.00	
Indirect Labor		700.00	
Accrued Wages			3,200.00
To record the wages accrued for the period December 24 to December 31, 1940. To be paid January 2, 1941.			
H			
Taxes, Sales Department		100.00	
Taxes, Administrative Department		200.00	
Taxes, Factory		1,200.00	
Accrued Taxes			1,500.00
To set up the liability for taxes on real and personal property for the last half of 1940 (estimate).			
I			
Insurance Expense, Sales Department		100.00	
Insurance Expense, Administrative Department		300.00	
Insurance Expense, Factory		1,700.00	
Prepaid Insurance			2,100.00
To record the expired premium on fire and other insurance.			
J			
Interest Expense		300.00	
Accrued Interest Expense			300.00
To record the interest accrued on notes payable to banks.			

These adjustments were entered next in the adjustment column opposite the trial balance after which the adjusted trial balance was obtained.

A cost of goods finished column is inserted in the worksheet to provide for the segregation of all items to be used in the preparation of the statement of cost of goods finished. The total of all items in the debit side less the total of all items in the credit side equals the cost of goods finished. This figure is carried to the debit side of the profit and loss column where it is comparable to the retailer's purchases.

The inventories of direct material and work in progress are used in computing the cost of goods finished but the inventory of finished goods is used only in the statement of profit and loss. All three inventories, however, will appear as current assets in the balance sheet.

The worksheet is completed and the statements are prepared in the usual manner. Each statement is assigned an exhibit letter, to facilitate cross reference, as follows:

Balance Sheet, December 31, 1940, Exhibit A.

Profit and Loss Statement, Year Ended December 31, 1940, Exhibit B.

Statement of Cost of Goods Finished, Year Ended December 31, 1940, Exhibit C.

Statement of Change in Net Worth, Year Ended December 31, 1940, Exhibit D.

Manufacturing, selling, and administrative expenses are shown in the proper exhibits, in total, and this results in condensed statements which are easily read. Excessive detail in a statement tends to obscure its important aspects. The detail is important, however, and must be accessible if desired. Schedules supporting the totals are attached for that purpose as follows:

Schedule B-1, Selling and Administrative Expenses.

Schedule C-1, Manufacturing Expenses.

It should be observed that schedules are keyed to the exhibit they support. Statements and schedules are frequently accompanied by a written report on the financial condition and the results of operations. In this event, it is convenient at times to refer to exhibits or schedules by their letter designations rather than by their sometimes lengthy titles.

TOOLSTEEL MANUFAC

WORKING SHEET—YEAR END

Title of Account	Trial Balance Debit	Trial Balance Credit	Adjustments Debit	Adjustments Credit
Cash	$ 15,000	$......	$......	$......
Accounts Receivable (Trade)	50,000			
Reserve for Bad Debts		900		3,310 –B
Inventories (Jan. 1, 1940):				
Direct Material	60,000			
Work in Progress	13,000			
Finished Goods	110,000			
Office Building	20,000			
Office Equipment	4,000			
Factory Building	30,000			
Machinery	25,000			
Reserve for Depreciation of Fixed Assets		10,800		3,250 –A
Land	6,000			
Indirect Material	14,000			10,000 –C
Factory Supplies	8,000			6,000 –D
Office Supplies	800			300 –E
Prepaid Insurance	3,500			2,100 –I
Accounts Payable (Trade)		20,000		
Notes Payable (Banks)		50,000		
R. D. Murphy, Net Worth		239,000		
R. D. Murphy, Withdrawals	4,800			
Sales		325,000		
Sales Returns and Allowances	4,000			
Direct Material Purchases	90,000			
Freight-In on Direct Material	4,200			
Direct Material, Purchase Returns and Allowances		2,000		
Direct Labor	70,000		1,400 –G	
Salesmen's Salaries	24,000		500 –G	
Advertising Expense	5,000			
Salesmen's Travel Expense	8,000			
Telephone and Telegraph, Sales Dept	500			
Miscellaneous Selling Expense	1,200			
General Administrative Salaries	30,000		600 –G	
Telephone and Telegraph, Admin. Dept	700			
Taxes, Sales Dept	200		100 –H	
Taxes, Admin. Dept	400		200 –H	
Miscellaneous Administrative Expense	1,400			
Indirect Labor	32,000		700 –G	
Heat, Light, and Power	3,300			200 –F
Taxes, Factory	1,200		1,200 –H	
Repairs, Factory	3,500			
Interest Expense	2,400		300 –J	
Sales Discount	5,000			
Purchase Discount		3,400		
	$651,100	$651,100		
Depreciation, Factory Building			1,200 –A	
" Machinery			1,250 –A	
" Office Building			400 –A	
" Office Equipment			400 –A	
Bad Debt Expense			3,310 –B	
Indirect Materials Used			10,000 –C	
Factory Supplies Used			6,000 –D	
Office Supplies Used (Administrative)			300 –E	
Coal on Hand			200 –F	
Accrued Wages				3,200 –G
Accrued Taxes				1,500 –H
Insurance Expense, Sales			100 –I	
" " Administrative			300 –I	
" " Factory			1,700 –I	
Accrued Interest Expense				300 –J
			$30,160	$30,160
Inventories, Dec. 31, 1940:				
Direct Material				
Work in Progress				
Finished Goods				
Cost of Goods Finished to Profit and Loss				
Net Profit to R. D. Murphy, Net Worth				

FIG.

TURING COMPANY

ED DECEMBER 31, 1940

Adjusted Trial Balance		Cost of Goods Finished		Profit and Loss		Balance Sheet	
Debit	Credit	Debit	Credit	Debit	Credit	Debit	Credit
$15,000	$	$	$	$	$	$ 15,000	$
50,000						50,000	
	4,210						4.210
60,000		60,000					
13,000		13,000					
110,000				110,000			
20,000						20,000	
4,000						4,000	
30,000						30,000	
25,000						25,000	
	14,050						14,050
6,000						6,000	
4,000						4,000	
2,000						2,000	
500						500	
1,400						1,400	
	20,000						20,000
	50,000						50,000
	239,000						239,000
4,800						4,800	
	325,000				325,000		
4,000				4,000			
90,000		90,000					
4,200		4,200					
	2,000		2,000				
71,400		71,400					
24,500				24,500			
5,000				5,000			
8,000				8,000			
500				500			
1,200				1,200			
30,600				30,600			
700				700			
300				300			
600				600			
1,400				1,400			
32,700		32,700					
3,100		3,100					
2,400		2,400					
3,500		3,500					
2,700				2,700			
5,000				5,000			
	3,400				3,400		
1,200		1,200					
1,250		1,250					
400				400			
400				400			
3,310				3,310			
10,000		10,000					
6,000		6,000					
300				300			
200						200	
	3,200						3,200
	1,500						1,500
100				100			
300				300			
1,700		1,700					
	300						300
$662,660	$662,660						
			70,000			70,000	
			15,000			15,000	
					100,000	100,000	
		300,450	87,000				
			213,450	213,450			
		$300,450	$300,450	412,760	428,400	347,900	332,260
				15,640			15,640
				$428,400	$428,400	$347,900	$347,900

30.

Exhibit A

TOOLSTEEL MANUFACTURING COMPANY

BALANCE SHEET, DECEMBER 31, 1940

ASSETS

Current:			
Cash		$ 15,000.00	
Accounts Receivable	$ 50,000.00		
Reserve for Bad Debts	4,210.00	45,790.00	
Inventories:			
Direct Material	$ 70,000.00		
Work in Progress	15,000.00		
Finished Goods	100,000.00	185,000.00	$245,790.00
Prepaid Expenses:			
Prepaid Insurance		$ 1,400.00	
Inventories:			
Office Supplies	$ 500.00		
Indirect Material	4,000.00		
Factory Supplies	2,000.00		
Coal	200.00	6,700.00	8,100.00
Fixed Assets:			
Office Building	$ 20,000.00		
Office Equipment	4,000.00		
Factory Building	30,000.00		
Machinery	25,000.00	$ 79,000.00	
Reserve for Depreciation		14,050.00	
		$ 64,950.00	
Land		6,000.00	70,950.00
Total Assets			$324,840.00

LIABILITIES

Current *			
Accounts Payable (trade)		$ 20,000.00	
Notes Payable (banks)		50,000.00	
Accrued Items:			
Wages	$ 3,200.00		
Taxes	1,500.00		
Interest	300.00	5,000.00	$ 75,000.00

NET WORTH

R. D. Murphy (See Exhibit D)			249,840.00
Total Liabilities and Net Worth			$324,840.00

* Liabilities for income tax and social security taxes are omitted.

Exhibit B

TOOLSTEEL MANUFACTURING COMPANY
PROFIT AND LOSS STATEMENT
YEAR ENDED DECEMBER 31, 1940

Gross Sales		$325,000.00	101.2%
Returns and Allowances		4,000.00	1.2
Net Sales		$321,000.00	100.0%
Cost of Goods Sold			
Inventory of Finished Goods, Jan. 1, 1940	$110,000.00		
Cost of Goods Finished (See Exhibit C)	213,450.00		
	$323,450.00		
Inventory of Finished Goods, Dec. 31, 1940	100,000.00	223,450.00	69.6%
Gross Profit		$ 97,550.00	30.4%
Operating Expense (Schedule B–1)			
Selling	$ 42,910.00		
Administrative	34,700.00	77,610.00	24.2%
Operating Profit		$ 19,940.00	6.2%
Non-Operating Expense and Income			
Interest Expense	$ 2,700.00		
Sales Discount	5,000.00		
	$ 7,700.00		
Less Purchase Discount	3,400.00	4,300.00	1.3%
Net Profit (To Exhibit D)		$ 15,640.00	4.9%

Schedule B–1

TOOLSTEEL MANUFACTURING COMPANY
SCHEDULE OF SELLING AND ADMINISTRATIVE EXPENSES
YEAR ENDED DECEMBER 31, 1940

Selling				
Salesmen's Salaries		$24,500.00		
Bad Debt Expense		3,310.00		
Advertising		5,000.00		
Taxes		300.00		
Insurance		100.00		
Telephone and Telegraph		500.00		
Salesmen's Travel Expense		8,000.00		
Miscellaneous		1,200.00	$42,910.00	55.2%
Administrative				
Salaries		$30,600.00		
Telephone and Telegraph		700.00		
Taxes		600.00		
Insurance		300.00		
Office Supplies		300.00		
Depreciation, Building	$400.00			
Depreciation, Equipment	400.00	800.00		
Miscellaneous		1,400.00	34,700.00	44.8%
Total (To Exhibit B)			$77,610.00	100.0%

Exhibit C

TOOLSTEEL MANUFACTURING COMPANY

STATEMENT OF COST OF GOODS FINISHED

YEAR ENDED DECEMBER 31, 1940

Direct Material				
Inventory Jan. 1, 1940......		$ 60,000.00		
Purchases.................	$90,000.00			
Freight-In.................	4,200.00			
	$94,200.00			
Purchase Returns and Allowances..................	2,000.00	92,200.00		
		$152,200.00		
Inventory, Dec. 31, 1940.....		70,000.00	$ 82,200.00	38.0%
Direct Labor................			71,400.00	33.2
Manufacturing Expense (See Schedule C–1)...........			61,850.00	28.8
Manufacturing Cost..........			$215,450.00	100.0%
Add Inventory of Work in Progress Jan. 1, 1940.....			13,000.00	
			$228,450.00	
Deduct Inventory of Work in Progress Dec. 31, 1940.....			15,000.00	
Cost of Goods Finished (To Exhibit B).................			$213,450.00	

The cost of goods finished, as shown in the above statement, must equal the difference in the two sides of the cost of goods finished column of the worksheet.

Schedule C–1

TOOLSTEEL MANUFACTURING COMPANY

SCHEDULE OF MANUFACTURING EXPENSES

YEAR ENDED, DECEMBER 31, 1940

Indirect Labor...........................		$32,700.00	52.9%
Indirect Material.........................		10,000.00	16.1
Factory Supplies.........................		6,000.00	9.7
Heat, Light, and Power..................		3,100.00	5.0
Taxes..................................		2,400.00	3.9
Insurance...............................		1,700.00	2.8
Repairs.................................		3,500.00	5.6
Depreciation, Building....................	$1,200.00		
Depreciation, Machinery..................	1,250.00	2,450.00	4.0
Total (to Exhibit C)....................		$61,850.00	100.0%

After statements are prepared, the bookkeeper posts adjusting entries from the journal to the ledger accounts.

Closing entries are then recorded in the journal from information contained in the worksheet.

General Journal

	L.F.	Debit	Credit
Closing Entries, December 31, 1940			
1.			
Cost of Goods Finished		300,450.00	
Direct Material Inventory			60,000.00
Work in Progress Inventory			13,000.00
Direct Material Purchases			90,000.00
Freight-In on Direct Material			4,200.00
Direct Labor			71,400.00
Indirect Labor			32,700.00
Heat, Light, and Power			3,100.00
Taxes, Factory			2,400.00
Repairs, Factory			3,500.00
Depreciation, Factory Building			1,200.00
Depreciation, Machinery			1,250.00
Indirect Material Used			10,000.00
Factory Supplies Used			6,000.00
Insurance Expense, Factory			1,700.00
To close all manufacturing debits and to remove the old inventories from the accounts. (Copied from the debit side of the cost of goods manufactured column.)			
2.			
Direct Material Purchase Returns and Allowances		2,000.00	
Inventory, Direct Material		70,000.00	
Inventory, Work in Progress		15,000.00	
Cost of Goods Finished			87,000.00
To close returns and allowances and to set up the December 31, 1940, inventories of direct material and work in progress. (This entry is copied from the credit side of the cost of goods finished column in the worksheet.)			

Having completed the framing of closing entries from the cost of goods finished columns, the bookkeeper prepares entries from the profit and loss columns as shown in entries 3, 4, and 5 and in the final

entry 6 to transfer the net profit for the period to the net worth column.

3.		
Sales	325,000.00	
Purchase Discount	3,400.00	
Inventory, Finished Goods	100,000.00	
Profit and Loss		428,400.00
To close profit and loss credits and set up the current inventory. (Copied from credit side of profit and loss column.)		
4.		
Profit and Loss	412,760.00	
Inventory, Finished Goods		110,000.00
Sales Returns and Allowances		4,000.00
Salesmen's Salaries		24,500.00
Advertising Expense		5,000.00
Salesmen's Travel Expense		8,000.00
Telephone and Telegraph, Sales Dept.		500.00
Miscellaneous Selling Expense		1,200.00
General Administrative Salaries		30,600.00
Telephone and Telegraph, Admin. Dept.		700.00
Taxes, Sales Dept.		300.00
Taxes, Admin. Dept.		600.00
Miscellaneous Administrative Expense		1,400.00
Interest Expense		2,700.00
Sales Discount		5,000.00
Depreciation, Office Building		400.00
Depreciation, Office Equipment		400.00
Bad Debt Expense		3,310.00
Office Supplies Used		300.00
Insurance Expense, Sales Dept.		100.00
Insurance Expense, Admin. Dept.		300.00
Cost of Goods Finished		213,450.00
To close all profit and loss debits and to remove the old inventory from the account. (Copied from debit side of profit and loss column.)		
5.		
Profit and Loss	15,640.00	
R. D. Murphy, Net Worth		15,640.00
To close the Profit and Loss Account.		
6.		
R. D. Murphy, Net Worth	4,800.00	
R. D. Murphy, Drawings		4,800.00
To close the Drawings account.		

After the closing entries are posted, the Cost of Goods Finished, Profit and Loss, and R. D. Murphy, Net Worth, accounts appear as follows:

TOOLSTEEL MFG. CO.

Cost of Goods Finished

Date 1940			J. F.	Amount	Date 1940			J. F.	Amount
Dec.	31	Closing Entry 1	J.	300,450.00	Dec.	31	Closing Entry 2	J.	87,000.00
						31	Closing Entry 4	J.	213,450.00
				300,450.00					300,450.00

TOOLSTEEL MFG. CO.

Profit and Loss

Date 1940			J. F.	Amount	Date 1940			J. F.	Amount
Dec.	31	Closing Entry 4	J.	412,760.00	Dec.	31	Closing Entry 3	J.	428,400.00
	31	Closing Entry 5	J.	15,640.00					
				428,400.00					428,400.00

TOOLSTEEL MFG. CO.

R. D. Murphy, Net Worth

Date 1940			J. F.	Amount	Date 1940			J. F.	Amount
Dec.	31	Closing Entry 6	J.	4,800.00	Jan.	1	Balance		239,000.00
					Dec.	31	Closing Entry 5	J.	15,640.00

Exhibit D

TOOLSTEEL MANUFACTURING COMPANY

Statement of Change in Net Worth

Year Ended December 31, 1940

Net Worth, Jan. 1, 1940	$239,000.00
Withdrawals	4,800.00
	234,200.00
Net Profit for 1940 (See Exhibit B)	15,640.00
Net Worth, Dec. 31, 1940 (See Exhibit A)	$249,840.00

QUESTIONS

1. What are the three elements of cost in the manufacturing process?
2. What is the one essential difference in the profit and loss statements of a retailer and a manufacturer?
3. How do you determine the manufacturing cost?
4. Having the manufacturing cost, how do you determine the cost of goods finished?
5. Having the cost of goods finished, how do you determine the cost of goods sold?
6. From the following information, compute the cost of direct material used in 1932:

Direct material purchased in 1932	$40,000.00
Inventory of direct material, Jan. 1, 1932	110,000.00
Inventory of direct material, Dec. 31, 1932	105,000.00
Freight-in on direct material purchases	1,000.00
Direct material purchase returns and allowances	2,000.00

7. Classify each of the following as direct material cost, direct labor cost, manufacturing expense, selling expense, or administrative expense:

    1. Machine shop supplies
    2. Salesmen's salaries
    3. Advertising
    4. Lubricants
    5. Taxes, factory building
    6. Depreciation; delivery truck
    7. Repairs to machinery
    8. Assembly department wages
    9. Foremen's wages
    10. Pig iron used in a steel mill
    11. Fuel used in a power house which is supplying power to a factory
    12. Sales manager's salary
    13. President's salary (It is estimated that about one-half his time is utilized in supervision of factory, and one-half in general administrative work.)
    14. Sandpaper

8. What is meant by a fixed manufacturing expense?
9. Compare a retail and a manufacturing balance sheet.
10. What name is given to the difference between the debit and credit sides of the cost of goods finished column in a worksheet?
11. The manufacturer's cost of goods finished is the same as which item in the retailer's computations?
12. What method is used to obtain condensed statements?
13. Indicate which of the following items are extended from the adjusted trial balance to the cost of goods finished column.

    a. Salesmen's Salaries
    b. Indirect Labor
    c. Direct Labor
    d. Advertising Supplies Used
    e. Power Costs
    f. Taxes
    g. Indirect Materials Used
    h. Sales Returns and Allowances
    i. Purchase Returns and Allowances
    j. Freight-in on Purchases of Direct Material

14. What closing entries does the manufacturer make that the retailer does not?

PART IV

CHAPTER XI

THE VOUCHER SYSTEM

The voucher system enlarges the function of the purchase journal to include not only purchases of merchandise but also purchases of fixed assets, services of employees, supplies, raw material, or any other item. It is introduced at this point because the purchase journal as described in previous chapters is not suitable to the manufacturing type of enterprise.

In addition, the voucher system injects a new element of control by requiring a written description and approval of each purchase, irrespective of the nature of the item purchased. Briefly, the procedure is as follows:

1. Each purchase must be described adequately on a prescribed form known as a voucher.
2. Each voucher must be approved by certain designated persons and sent to the accounting department.
3. A qualified employee in the accounting department records on the voucher the names of such accounts as are to be debited and credited as a result of the purchase.
4. Using the voucher as a source of information, the bookkeeper records the transaction in a columnar journal known as a voucher register. This journal is merely an enlarged purchase journal but it is termed voucher register since it is a record or register of vouchers issued.

The Voucher. The front of a voucher, Fig. 31, contains a description of the transaction. Such information is obtained from invoices received in the usual course of business or from other business papers serving as original evidence of the transaction.[1]

[1] The invoice itself would serve the same purpose but it is better practice to use a standard form of voucher instead. Invoices, as received from various concerns, vary in size, shape, and color, and for these reasons are inconvenient to file. Vouchers may be prepared in the form of an envelope so that supporting business papers, such as invoices, may be folded and placed inside.

Before the front of a voucher is complete it must bear the approving signatures of various persons who have been charged with specific responsibilities in respect to each purchase. Approval is generally required to insure the following:

1. The item purchased was received.
2. Prices are correct.
3. The arithmetical computations, used in arriving at the total amount of the purchase, are correct.

After approval the voucher is sent to the accounting department where the accounts to be debited and credited are recorded on its reverse side. At this point the voucher is numbered and entered in the voucher register, Fig. 32.

The Voucher Register. In the first column at the left is entered the day of the month on which the voucher is dated or approved. In the second column is the number of the voucher. These numbers are assigned consecutively as vouchers are entered. The third column is for the vendor's name (not the title of an account). The use of the paid column will be explained later.

The amount of each voucher is recorded in the first money column, headed vouchers payable. Once a month the total of this column is posted as a credit to the Vouchers Payable account.

Under the voucher system, vouchers payable takes the place of accounts payable (trade) and (other). Consequently, the Vouchers Payable account shows the liability for all purchases and is to be credited with the amount of each voucher issued.

Remaining money columns are for the various debits or "distribution," according to the nature of the items purchased. With the exception of sundry, each column heading corresponds to an account title in the ledger. Once a month these column totals are posted as debits to the accounts indicated. The figure in parenthesis below each total refers to the ledger page to which these amounts were posted. For example, the total of the raw material purchases column was posted as a debit to the Direct Material Purchases account on page 60 of the ledger. It should be observed that the sundry column total is an exception in this respect. This column is used to record debits to various accounts for which special columns are not provided. Each debit in this column must be posted separately when convenient, rather than in total at the end of the month. An L. F. column is inserted to provide a reference to the ledger accounts.

IOWA CITY LIGHT AND POWER COMPANY

IOWA CITY, IOWA

TO Dudley Equipment Corporation DR.

19 33 ADDRESS 214 Durant Street, Chicago, Illinois

DATE		DESCRIPTION	AMOUNT		TOTAL
April	8	1 4-drawer vertical letter file-green steel	36	20	
		1 green steel wardrobe	50	10	
		1 double face green steel desk	93	70	
					180
		(F R O N T O F V O U C H E R)			

VOUCHERED BY JBW VOUCHER CLERK | CORRECT C.J.O.F. CHIEF CLERK | APPROVED C.B. Jones MANAGER

PAID BY CHECK NO. 1302 DATE April 17

PAID BY CHECK NO. ______ DATE ______

PAID BY CHECK NO. ______ DATE ______

CANCELED BY ENTRY ______ DATE ______

VOUCHER NO. 326

IOWA CITY LIGHT AND POWER COMPANY

IOWA CITY, IOWA

IN FAVOR OF

Dudley Equipment Corporation

214 Durant Street

Chicago, Illinois

FOR Cabinets and desk

AMOUNT $ 180.00 FREIGHT $ 5.30

MONTH OF April

LEDGER ACCOUNTS TO BE CHARGED

ACCT NO	ACCOUNT	AMOUNT		✓
	CONSTRUCTION			
	OPER EXP STOCKS ETC			
23	Office Equip.	185	30	
	FORWARD			

(R E V E R S E O F V O U C H E R)

Fig. 31.

The total of the one credit column, vouchers payable, should equal the sum of the debit column totals. (It is for this proof only that the sundry column is totaled.)

Cash Disbursements under the Voucher System. *All cash is disbursed by check.*[1] Furthermore, the issuance of a check must be authorized by an approved and recorded voucher. In other words, each check is supported by a voucher.

Procedure for payment of vouchers is generally as follows:

1. After a voucher has been recorded in the voucher register it is placed in the unpaid voucher file[2] under the date on which it is to be paid. A voucher dated January 2, 1934, with terms of 2/10; n/30, is filed under January 12, 1934, as it must be paid on that day to secure the 2% discount.

2. When due to be paid, vouchers are removed from the unpaid voucher file and given to the disbursement clerk who issues *a check in payment of each voucher.* The checks are numbered in the usual manner, as issued.

3. Vouchers which have been paid are filed in the paid voucher file, and checks are mailed to the proper addresses. Each paid voucher should bear two numbers, its own voucher number and the number of the check which paid it. Each check should bear two numbers, its own check number and the number of the voucher against which it was issued.

4. A record of each check issued is made in a check register by the bookkeeper. Required information in this respect is obtained from checkbook stubs. As all cash is disbursed by check, the cash payment journal becomes a record of checks issued, and its title is changed to the check register.

5. The bookkeeper also records the date and number of each check in the paid column of the voucher register, opposite the voucher against which it was issued. Therefore, vouchers which remain unpaid may be detected by an inspection of this paid column. At the end of each month, the bookkeeper prepares a list of unpaid vouchers from information contained in the voucher register, and this list should agree with those vouchers in the unpaid voucher file at that time.

[1] Payments for certain expenses may be made in currency from a petty cash fund to avoid the writing of numerous checks for small amounts. The operation of a petty cash fund is explained later in this chapter.

[2] The unpaid voucher file takes the place of the creditors ledger, which is unnecessary in the voucher system.

The Check Register. The date and number of each check are entered in the columns at the left, Fig. 33. In the next column is the name of the payee. Voucher numbers are entered in the next column.

CHECK REGISTER

Date 1934	Check Number	Payee	Voucher Number	Cash Credit	Purchase Discount Credit	Vouchers Payable Debit
Jan. 3	1	Petty Cash................ ...	4	25.00		25.00
	2	Payroll......................	5	6,420.00		6,420.00
7	3	Carbon Company..............	6	1,176.00	24.00	1,200.00
8	4	Elwell Light and Power Company.	10	127.40	2 60	130.00
23	28	Certain-feed Corporation........	2	300.00		300.00
24	29	Note Payable and Interest.......	47	601.00		601.00
	30	Payroll.......................	48	6,400.00		6,400.00
	31	U. S. Stain Corporation.........	3	600.00		600.00
28	32	Standard Supply, Inc...........	51	411.60	8.40	420.00
29	33	Mutual Insurance Company......	53	1,100.00		1,100.00
	34	County Treasurer..............	54	180.00		180.00
31	35	Payroll.......................	56	6,600.00		6,600.00
	36	U. S. Stain Corporation..........	3	900 00		900.00
	37	Petty Cash....................	55	20.40		20.40
				32,008.60	360.20	32,368.80
				(1)	(233)	(30)

FIG. 33.

The first money column is headed cash credit, and in it is entered the amount of each check. Once a month the total of this column is posted as a credit to the Cash account. Discounts which are secured by prompt payment are entered in the second money column. The total of this column is posted monthly as a credit to the Purchase Discount account. In the third and last money column on the right is entered the amount of the voucher against which the check was issued. At the end of the month, the total of this column is posted as a debit to the Vouchers Payable account.

Vouchers Payable Account. The Vouchers Payable account is credited monthly from the voucher register and debited monthly from the check register. As a result, it has a credit balance which represents the total amount of vouchers unpaid. This balance is shown in the balance sheet as a current lability. Vouchers payable takes the place of accounts payable (trade) and (other). The creditors ledger is

discontinued, as the unpaid voucher file is adequate in conjunction with other features of the voucher system. The balance of the Vouchers Payable account, the vouchers in the unpaid vouchers file, and the unpaid vouchers according to the paid column of the voucher register should agree. Such a test should be made monthly.

Cancelation of Vouchers before Payment. Voucher 1, Fig. 32, covers a purchase of raw material from the Lyons Corporation. On January 2 this voucher was approved for payment, recorded in the voucher register, and filed in the unpaid voucher file under date of February 1 when it is due to be paid. On January 5, however, this material was returned to the Lyons Corporation as unsatisfactory. What procedure is necessary for this transaction? First, an entry should be made in the general journal as follows:

5	Debit	Credit
Vouchers Payable..............................	2,000.00	
Direct Material Purchase Returns..............		2,000.00
To record the cancelation of voucher 1. Material returned as unsatisfactory.		

Secondly, the voucher should be removed from the unpaid voucher file, marked "canceled," and filed in a cancelation file. Finally a notation should be made in the paid column of the voucher register to indicate its cancelation rather than payment. This may be done by inserting the symbol J. E. (journal entry), with the general journal page number.

If only a part of this material had been returned, the procedure should be as follows:

1. Record a debit to vouchers payable and a credit to direct material purchase returns, for the amount returned, in the general journal.

2. Remove the voucher from the unpaid voucher file, deduct the amount returned, and return it to the unpaid voucher file to await payment.

3. Make a notation in the paid column of the voucher register to indicate a reduction in the amount of the voucher. When payment is made finally, this notation may be completed by inserting the date and check number. (See voucher 2.)

Partial Payment of Vouchers. In some cases a voucher cannot be paid when due because of insufficient cash. In that event, the

voucher is simply refiled in the unpaid voucher file under a later date. If partial payment is made, however, the voucher's amount should be reduced by the amount paid, proper reference being made to date and check number on the face of the voucher. After this, it should be filed in the unpaid voucher file again under a later date. Notation in the paid column of the voucher register may be made as illustrated for voucher 3. This voucher was partially paid by check 31 on January 24, and later payment was completed by check 36.

Payment of Voucher by Note. If payment of a voucher cannot be made when due, the creditor may request that a note be signed. If this is done the liability changes from a voucher payable to a note payable, and an entry should be made in the general journal for the face of the note as follows:

14	Debit	Credit
Vouchers Payable............................	600.00	
Notes Payable............................		600.00
To cancel voucher 8. Note for 10 days at 6% given to creditor.		

At the same time, this voucher should be removed from the unpaid voucher file, marked "Paid by note, see general journal page ——," and placed in the paid voucher file. Also, a notation must be made in the voucher register. (See voucher 8 in the voucher register.)

Later, when the note is due to be paid, a voucher must be prepared, authorizing its payment, and recorded in the voucher register as a debit to Notes Payable (for face), a debit to Interest Expense (if note bears interest), and a credit to Vouchers Payable. A check is issued against this voucher. (See voucher 47 and check 29.)

Imprest System of Petty Cash. As previously stated, all cash disbursements under the voucher system are made by checks which in turn are supported by vouchers. But some disbursements are for very small amounts, and it becomes desirable to establish a petty cash fund. The fund is established by preparing a voucher authorizing the issuance of a check made out to petty cash. This voucher is recorded in the voucher register as a debit to the Petty Cash account and a credit to the Vouchers Payable account. (See voucher 4, Fig. 32.) The check is issued immediately and recorded in the check register as a debit to the Vouchers Payable account and a credit to the Cash account. (See check 1, Fig. 33.) Currency obtained by cashing this

check is given to the cashier, who is thereafter responsible for its disbursement. The amount and nature of each disbursement from petty cash must be noted on a slip of paper as the cash is disbursed. At all times, the total of cash and disbursement slips must equal the original amount of the fund. When it becomes necessary to reimburse the fund, the disbursement slips are totaled and a voucher is made for this amount and recorded in the voucher register as a debit to various expenses, depending on the nature of disbursements which were made, and a credit to vouchers payable. (See voucher 55, Fig. 32.) A check is issued immediately against the voucher and recorded in the check register as a debit to vouchers payable and a credit to cash. (See check 37, Fig. 33.) Currency obtained by cashing this check is given to the cashier, and the procedure repeats itself.

It should be observed that the Petty Cash account is debited when the fund is established, but thereafter it is neither debited nor credited unless it becomes desirable to increase or decrease the size of the fund. Petty cash is a current asset. Generally, it is included with the cash item on the balance sheet.

Conclusion. The voucher system employs a voucher register rather than a purchase journal, and a check register rather than a cash payment journal. On the other hand, the cash receipt journal and sales journal are not affected. In some cases it may be advisable to introduce a special column in the general journal for debits to the Vouchers Payable account recording cancelation of vouchers, but in other respects the general journal is not affected.

The Vouchers Payable account replaces the Accounts Payable (trade) and Accounts Payable (other) accounts, and the creditors ledger is not necessary as the file of unpaid vouchers reveals the amounts owing to each creditor. In some cases, however, it may be advisable to continue the creditors ledger as a supplement to the unpaid vouchers file.

All cash disbursements, with the exception of petty cash items, are by check, and checks cannot be issued without proper authorization in the form of a voucher. Thus, control over expenditures is improved and responsibility definitely fixed.

The voucher register is a columnar journal in which all transactions are recorded which may require the disbursement of cash later. Where debits to any one account occur frequently, a special column should be provided wherein such debits may be recorded. Vouchers are numbered consecutively as they are entered, and a new series of numbers may be started each year or at any time desirable.

The discussion in this chapter describes the voucher system in relation to manufacturing accounts. It should be understood, however, that the voucher system may be applied with equal success to retail accounts.

QUESTIONS

1. What is posted as a credit to the Vouchers Payable account?
2. What is posted as a debit to the Vouchers Payable account?
3. If the Vouchers Payable account has a balance of $43,100.00 how can it be shown that this balance is correct?
4. How is the balance of the Vouchers Payable account shown in the balance sheet?
5. Describe the office procedure in handling vouchers after they have been recorded in the voucher register.
6. Is it correct to state that under the voucher system each check that is written represents a debit to vouchers payable?
7. How are vouchers filed in the unpaid voucher file?
8. Voucher 201 covered a purchase of raw materials for $1,820.00. After this voucher had been recorded in the voucher register, but before it had been paid, one-fourth the material was returned as unsatisfactory. Describe how this should be treated, and show the general journal entry, if one is necessary.
9. Explain how a petty cash fund is established under the voucher system. How is the Petty Cash account shown in the balance sheet?
10. What is the procedure when petty cash is reimbursed?
11. In the voucher system, would any distinction be made between a purchase on account and a cash purchase?
12. (a) The account shown below was copied from the general ledger of the Smith Company at December 31, 1940. Explain the nature of the entry made on June 6, 1940, assuming that the fund is operated on the imprest system and that the entry has been made correctly.

Petty Cash

Jan. 10, 1936	100.00	
June 6, 1940	50.00	

(b) It is suspected that a petty cashier takes cash from the petty cash box, spends it for his personal needs and places a fraudulent notation of a disbursement for sundry expenses in the box. How could this fraudulent practice be discouraged without replacing the cashier?

CHAPTER XII

SUBSIDIARY LEDGERS

A subsidiary ledger contains a detailed analysis of a general ledger account. The customers and creditors ledgers, which were described in Chapter IX, are excellent examples of a subsidiary ledger. In the voucher system, the unpaid voucher file is recognized as a subsidiary ledger in support of the Vouchers Payable account, each voucher being thought of as an account with a creditor and hence similar to the creditors ledger.

It is the purpose of this chapter to describe the nature of other important subsidiary ledgers which are in common use.

Manufacturing Expense Ledger. In effect, all manufacturing expense accounts such as indirect labor, factory supplies, power, heat, light, etc., are removed from the general ledger and placed in a separate record which is termed the manufacturing expense ledger. Their place in the general ledger is taken by the one account, manufacturing expense, whose balance represents the total of all manufacturing expenses. Under these conditions, it will be necessary to refer to the subsidiary ledger to prepare a schedule of manufacturing expenses such as that illustrated in Fig. 29, Chapter X.

Advantages of a Manufacturing Expense Ledger. Substitution of one account in the general ledger for many accounts produces a shorter trial balance which in turn facilitates preparation of the work-sheet and statements.

Errors in the trial balance may be located with greater efficiency. To illustrate, assume that the trial balance is out of balance, that there are one hundred different manufacturing expense classifications, and that there is one account for each of these expenses in the trial balance because a subsidiary ledger is not in use. Any one of the one hundred accounts may be in error, but on the other hand they all may be correct and the error may be in some other account such as cash or sales. There is no way of allocating the error within or without this group except by checking each of the one hundred ac-

counts. Now if the trial balance contains but one account with manufacturing expense and the one hundred accounts with the various classes of expense are in a separate expense ledger, such allocation is possible. If the expense ledger is in agreement with its controlling account in the general ledger, it is safe to assume that the error is not contained in this group of accounts. On the other hand, if the expense ledger does not tie in or agree with the controlling account, the error very probably is within this group.

A division of labor is another advantage of the subsidiary ledger. One person only should maintain the general ledger and, as a result, he is usually overworked at best. The substitution of one account in the general ledger for, let us say, one hundred accounts relieves him of numerous detailed postings which may be performed by some one else. In fact, large accounting systems with thousands of transactions to record each day would be impracticable in operation without the advantages offered by such bookkeeping devices as the columnar journal, the general ledger controlling account, and the subsidiary ledger.

Variations in the Recording of Transactions Necessitated by the Use of a Manufacturing Expense Ledger. 1. *Voucher Register.* The columnar arrangement of the voucher register illustrated in Fig. 32 is changed when the general ledger contains but one account with manufacturing expense. In Fig. 32 a special column is used for each of the following:

a. Indirect Labor
b. Factory Supplies
c. Factory Heat, Light, and Power

These represent general ledger accounts to which the totals of these columns are posted monthly. Posting the amounts indicated in Fig. 32, these accounts in the general ledger appear as follows:

Indirect Labor

Jan. 31	3,900.00		

Factory Supplies

Jan. 31	2,100.00		

Factory Heat, Light and Power

Jan. 31	1,200.00	

But if there is only one account in the general ledger for all types of manufacturing expense it is obvious that these three amounts must be posted to that one account as follows:

Manufacturing Expense

Jan. 31	3,900.00	
31	2,100.00	
31	1,200.00	

In other words, the Manufacturing Expense account takes the place of the Indirect Labor account, the Factory Supplies account, the Factory Heat, Light, and Power account, and any other accounts with manufacturing expense which might exist.

To avoid numerous postings to the Manufacturing Expense account, one column, headed Manufacturing Expense, is substituted in the voucher register for the three columns headed Indirect Labor, Factory Supplies, and Factory Heat, Light, and Power. The total of this one column is posted to the Manufacturing Expense account as follows:

Manufacturing Expense

Jan. 31	7,200.00	

This procedure simplifies the voucher register by substituting one column for three columns, and it condenses the Manufacturing Expense account by substituting one debit for three debits.

2. *General Journal.* Adjusting entries for a manufacturing business, as recorded in the general journal, are illustrated in Chapter X, pages 157 and 158. When the general ledger contains but one account for all types of manufacturing expense, these entries must be changed in this respect: Debit or credit the Manufacturing Expense

account in lieu of the particular type of manufacturing expense indicated. For example, adjustment A would appear as follows:

	L.F.	Debit	Credit
A			
Manufacturing Expense....................		2,450.00	
Depreciation, Office Building................		400.00	
Depreciation, Office Equipment............		400.00	
Reserve for Depreciation.................			3,250.00
To record depreciation for the year ended December 31, 1940, as follows:			
Factory Building, 4% of cost.... $1,200.00			
Machinery, 5% of cost......... 1,250.00			
$2,450.00			
Office Building, 2% of cost..... 400.00			
Office Equipment, 10% of cost.. 400.00			
Total.................... $3,250.00			

It should be observed that manufacturing expense was debited instead of depreciation expense for depreciation on the factory fixed assets.

3. *Cash Receipt Journal, Sales Journal, Check Register.* The use of a manufacturing expense ledger would not affect these records.

Sources of Entries in the Manufacturing Expense Ledger. The manufacturing expense ledger may be a loose-leaf book or file, one page being used for each type of manufacturing expense. Debits to each of these expenses are obtained from two sources as follows:

1. After a voucher has been recorded in the voucher register as a debit in the manufacturing expense column it may be sent to a clerk who is in charge of the expense ledger. He could enter the date, voucher number, and amount as a debit in the proper expense account, such as indirect labor or factory supplies, according to information shown on the voucher. After this had been done, the voucher may be placed in the unpaid voucher file as usual. In this manner, every amount recorded in the manufacturing expense column of the voucher register may be recorded also in one of the subsidiary ledger accounts. This procedure has one disadvantage—the voucher is delayed and sometimes is mislaid on its way to the unpaid voucher file. Discounts offered for prompt payment may be lost if the voucher is not in the file at the proper time. To avoid delay, the clerk in charge of the expense ledger should receive a copy only of the voucher, or possibly a memorandum of some form.

2. Copies of all adjusting entries which involve debits or credits to the Manufacturing Expense account as recorded in the general journal are sent to the subsidiary ledger clerk, who enters the date, general journal reference, and amount of each debit or credit in the subsidiary ledger account affected.

Thus every debit or credit made to manufacturing expense in the general ledger finds its way to the subsidiary manufacturing expense ledger. Once a month a list of expenses is prepared from the subsidiary ledger which must agree in total with the Manufacturing Expense account balance.

Manufacturing Expense Ledger in the Form of a Monthly Analysis Sheet. Information contained in the manufacturing expense ledger is used to prepare a schedule of manufacturing expenses for each month's operations. For this reason it is desirable to use a form of subsidiary ledger similar to that illustrated in Fig. 34. Instead of using a separate page for each account only one sheet of paper is necessary upon which separate columns are provided for each item of expense. The result is a very convenient analysis of manufacturing expense. A good grade of paper should be used, entries should be typed or written in ink, and each sheet should be filed in a fireproof container after it has served its purpose, new sheets being started each month. Only the debit side of each account is represented in such an analysis, and if adjusting credits must be recorded it is customary to use red ink to indicate such credits. The total of any column, therefore, is the difference between the total debits (in black) and the total credits (in red).

Referring to Fig. 34, the total of $4,618.00 would be shown as a debit balance in the controlling Manufacturing Expense account in the general ledger.

Departmental Manufacturing Expense Analysis Sheets. Detailed analysis of manufacturing expenses may be obtained by departmentalizing the factory. For example, in the manufacture of plate glass the following departments may be recognized:

1. Clay Pot Department
2. Heating Department
3. Pouring Table
4. Cooling Lehr
5. Marking and Cutting Department
6. Polishing Department
7. Finishing Department

In this event all manufacturing expenses will be charged to one account (manufacturing expense) in the general ledger as usual, but

ANALYSIS OF MANUFACTURING EXPENSE
MONTH OF JANUARY

1940 * Red

Date		Reference	Indirect Labor	Supplies	Heat, Light and Water	Power	Depreciation	Taxes	Insurance	Total
Jan.	5	Vou. 164	600.00							600.00
	8	Vou. 190		210.00						210.00
	9	J–23		20.00*						20.00*
	28	Vou. 170			30.00	160.00				190.00
		Vou. 172			38.00					38.00
		Vou. 178							120.00	120.00
		Vou. 179							60.00	60.00
		J–26					560.00			560.00
		J–26						85.00		85.00
		Vou. 191	580.00							580.00
		Totals	3,210.00	190.00	68.00	160.00	560.00	120.00	310.00	4,618.00

Fig. 34.

seven subsidiary analysis sheets instead of one will be maintained to provide departmental analyses. Identical columns with few exceptions perhaps may be used for each analysis sheet, expenses being spread over these seven sheets as they are allocated [1] to each department. A complete departmental analysis of manufacturing expenses may be obtained from this arrangement.

Selling Expense Ledger. All selling expenses such as salesmen's salaries, advertising, traveling expenses, commissions, supplies, and depreciation of store fixtures or delivery equipment are removed from the general ledger and set up in the selling expense ledger. Their place in the general ledger is taken by a controlling Selling Expense account. The entire procedure is similar to that employed for manufacturing expenses. Selling expense is shown in the profit and loss statement in total, and a separate schedule of selling expenses is attached to show an analysis of this total. (See page 163.) Information for such a schedule is obtained from the selling expense ledger which is usually in the form of a monthly analysis sheet containing one column for each type of selling expense.

Only one column for selling expense is contained in the voucher register, and its total is posted monthly as a debit to the controlling general ledger Selling Expense account. All vouchers covering salesmen's salaries, advertising, selling supplies, etc., are recorded in the selling expense column.

Adjustments recorded in the general journal must be made through the controlling Selling Expense account instead of through the particular type of expense affected. For example, the adjustment for accrued salesmen's salaries of $800.00 ordinarily is made as follows:

[1] Methods of allocating expenses vary. It should be possible to determine rather definitely each department's expense in respect to such items as indirect labor, supplies, and power. Indirect labor expense in each department may be obtained by requiring the employees to use time cards on which they must indicate the number of hours they worked in each department. Ordinarily one man will remain in one certain department most of the month, but some men may be shifted from one department to another quite frequently as the occasion demands. A record of the supplies used by each department can be kept. Electrical or steam power may be measured by meters. On the other hand some expenses do not permit of such definite allocation. For example, depreciation of the factory building may be allocated in proportion to the square feet of floor space occupied by each department, the same method being applicable to insurance and tax expenses. But such a method is only an approximation and may not be an equitable distribution. In general some satisfactory method of allocating each expense can be evolved, but a knowledge of actual conditions in each situation is essential to a solution of this problem.

		L.F.	Debit	Credit
	Salesmen's Salaries........................		800.00	
	Accrued Salesmen's Salaries..............			800.00
	To record the accrual of salesmen's salaries for December 28 to 31, 19—.			

But if the general ledger contains but one account with selling expense the adjustment will be:

		L.F.	Debit	Credit
	Selling Expense..........................		800.00	
	Accrued Salesmen's Salaries..............			800.00
	To record the accrual of salesmen's salaries for December 28 to 31, 19—.			

Entries in the selling expense ledger are made from vouchers, possibly duplicate copies, and from copies of general journal entries. Every debit made to selling expense in the general ledger must find its way to the selling expense ledger where it is recorded under the proper expense title. Once a month a list of selling expenses is prepared from the expense ledger, and this must agree in total with the Selling Expense account balance.

Administrative Expense Ledger. This ledger, or analysis sheet, as the case may be, shows an analysis of the Administrative Expense account in the general ledger. The entire procedure is similar to the one employed in reference to selling expenses and need not be repeated.

Fixed Asset Ledger.[1] A technique similar to that used for manufacturing, selling, and administrative expenses is applicable to a control of fixed assets. Large enterprises usually have a stupendous investment in fixed assets such as machinery, buildings, and various equipment. Detailed information concerning these assets is essential, but it is desirable to maintain such data outside of the general ledger.

Only one account is maintained in the general ledger showing the cost of all fixed assets irrespective of their nature. In support of this controlling account is a subsidiary fixed asset ledger consisting of cards showing various information as is indicated in Fig. 35. Gen-

[1] Also referred to as the plant ledger, particularly in manufacturing industries.

erally a card is provided for each unit of asset. For example, if a factory has ten rip-saws, there might be one card for each machine; if an enterprise has a fleet of delivery trucks, there might be one card for each truck; or if an enterprise owns several buildings, there might be one card for each building. The extent to which such a procedure should be carried depends on the necessity for detailed information and, of course, on the possibilities of combining several units on one card without sacrifice of important detail. For example, if ten identical machines are purchased at the same time from the same vendor and if they are all to be used in one department of the factory, it is quite probable that they could be considered as a unit and recorded on one card rather than ten cards. Judgment must be exercised in this respect to avoid repetition of clerical work and an unduly large number of cards.[1]

Cards may be arranged in groups and properly indexed to provide any desired subclassification of the fixed asset total such as:

1. Factory Buildings
2. Administrative Buildings
3. Store Buildings
4. Warehouses
5. Factory Equipment and Machinery
6. Delivery Equipment
7. Office Equipment

The voucher register under this method contains one column for fixed assets in which are recorded all vouchers covering purchases of fixed assets irrespective of their nature. The total of this column is posted monthly as a debit to the Fixed Assets account. After such vouchers have been entered in the fixed asset column they are forwarded to the proper party for entry in the fixed asset ledger and then filed in the unpaid voucher file. New cards are inserted for each unit of asset purchased.

Depreciation and the Fixed Asset Ledger. Each card in the fixed asset ledger should provide for the recording of depreciation. Depreciation can be entered when the asset is purchased since at that time its life must be estimated. The amount of depreciation each month should be recorded prominently as illustrated in Fig. 35. The

[1] The analysis sheet form of subsidiary ledger recommended for manufacturing, selling, and administrative expenses is not a desirable form for the fixed asset ledger.

FIXED ASSET LEDGER CARD

Sym-bol.	Sub Acct. No. 305	Acct. No. 25

NAME OF ASSET Ice Cream Freezer

DEPARTMENT Ice Cream LOCATION

DESCRIPTION 1-50 Qt. Progress Direct Expansion Freezer, motor drive,
A C 60 cycle, 3 phase, 220 volts. Serial No. 565

MANUFACTURER'S SERIAL NO. YEAR TYPE MODEL

SIZE 50 Qt. H. P.

FLOOR SPACE OCCUPIED AMT. INS. CARRIED $ RATE $

ESTIMATED LIFE 7 YEARS DEPRN. RATE 14% DEPRN. PER MO. $ 12.81

APPRAISED BY WHEN APPRAISED 19 APPR. VALUE $

SALVAGE OR SCRAP VALUE $

Date Acquired		From Whom Purchased		Original Cost		Additional Charges		Total Cost	
7-20-	31	Creamery Pkg. Mfg. Co.		901	00			901	00
7-20-	31	Freight		97	00			97	00
7-20-	31	Installation		100	00			100	00
				1,098	00			1,098	00

DEPRECIATION RECORD

	19 31		19 32		19 33		19		19		19	
Fwd.			76	86	230	58						
JAN.			12	81	12	81						
FEB.			12	81	12	81						
MAR.			12	81	12	81						
APR.			12	81								
MAY			12	81								
JUNE			12	81								
JULY	12	81	12	81								
AUG.	12	81	12	81								
SEPT.	12	81	12	81								
OCT.	12	81	12	81								
NOV.	12	81	12	81								
DEC.	12	81	12	81								
TOTAL	76	86	230	58								

FIG. 35.

reserve for depreciation will increase each month, and this increasing reserve may be computed in advance and noted on the card as illustrated. In effect, then, the fixed asset ledger is also subsidiary to the Reserve for Depreciation of Fixed Assets account appearing in the general ledger.

At the end of each month an adding machine tape of depreciation charges may be made from the cards. If subtotals for each subdivision of assets are computed, the tape will serve as a basis for the following monthly adjusting entry recording depreciation expense:

	L.F.	*Debit*	*Credit*
Manufacturing Expense..........................		xx	
Selling Expense..................................		xx	
Administrative Expense..........................		xx	
Reserve for Depreciation—Fixed Assets..........			xx
To record depreciation expense for the month on all fixed assets.			

The total shown on the tape would be credited to the reserve, and each controlling expense account would be charged with its share as indicated in the above entry, depending on the distribution of fixed assets in the three divisions of operation. A copy of this adjusting entry would be sent to expense ledger clerks for entry in their respective ledgers as described previously. No entry in the fixed asset ledger is necessary, however, because the facts have been recorded there in advance.

Once a month a list of the fixed assets should be prepared from the ledger cards showing the cost and reserve for depreciation figures on each card at that date. A total of these costs should equal the Fixed Asset account balance in the general ledger. A total of the reserve for depreciation figures should equal the Reserve for Depreciation, Fixed Assets, account balance in the general ledger.[1]

Additional Information on Fixed Asset Ledger Cards. It is desirable at times to show certain information which is not indicated in the card illustrated in Fig. 35. The reverse side may be used for this purpose. Concerning trucks, for example, a record of mileage, gasoline consumption, repairs, new tire purchases, and driver's name for each truck is valuable information which discloses inefficiency, theft of gasoline, superiority of one make of car over another, and other

[1] Entries for the disposal of fixed assets are explained in a later chapter.

possible facts. In general, this type of information is in the nature of a memorandum and is not tied in with the general ledger controls.

General Ledger Controls and Corresponding Subsidiary Ledgers, Summarized. The following general ledger controls and their subsidiary ledgers have been described:

General Ledger Controlling Account	*Subsidiary Ledger*
Accounts Receivable (trade)	Customers Ledger
Accounts Payable (trade)	Creditors Ledger
Vouchers Payable	Unpaid Voucher File
Manufacturing Expense	Manufacturing Expense Ledger
Selling Expense	Selling Expense Ledger
Administrative Expense	Administrative Expense Ledger
Fixed Assets Reserve for Depreciation, Fixed Assets	Fixed Asset Ledger

Chart of Accounts. As an illustration of one method of coding and of selecting typical account titles for various subsidiary ledgers the following chart of accounts is presented:

1 Assets
- 11 Current
  - 111 Cash in Banks
    - 1111 First Bank
    - 1112 State Bank
    - 1113 Merchants Bank
  - 112 Petty Cash
    - 1121 General Office Fund
    - 1122 Branch Office Fund
  - 113 Notes Receivable
  - 114 Accounts Receivable (Controlling customers ledger arranged alphabetically)
  - 115 Inventories
    - 1151 Raw Material
    - 1152 Goods in Process
    - 1153 Finished Goods
  - 116 Accrued Receivables
  - 117 Marketable Securities
  - 118
  - 119
- 12 Fixed Assets (Controlling the fixed asset ledger)
  - 121 Factory Group
    - 1211 Buildings
      - 12111 Plant #1
      - 12112 Plant #2
      - 12113 Plant #3
      - Etc.
    - 1212 Equipment
    - 1213 Machinery
    - 1214 Special

- 122 Selling Division Group
    - 1221 Buildings
        - 12211 Store #1
        - 12212 Store #2
        - 12213 Warehouse
    - 1222 Store Equipment
        - 12221 Store #1
        - 12222 Store #2
    - 1223 Delivery Equipment
        - 12231 to (providing for 99 trucks) 122399
- 123 Administrative Division Group
    - 1231 Building
    - 1232 Office Equipment
    - 1233 Officers' Cars

13 Prepaid Expenses
- 131 Supplies
- 132 Insurance
- 133 Etc.

14 Intangible Assets
- 141 Patents
- 142 Copyrights
- 143 Leasehold
- 144 Leasehold Improvements

15 Non-Current Investments

16 Other Assets
- 161 Organization Expense
- 162 Goodwill
- 163 Subscriptions Receivable (on Capital Stock)

2 Liabilities

21 Current
- 211 Notes Payable
- 212 Vouchers Payable (Unpaid voucher file with vouchers arranged according to dates payable)
- 213 Accrued Expenses
- 214 Dividends Payable
- Etc.

22 Fixed
- 221 Long-Term Notes Payable
- 222 Mortgage Payable
- 223 Bonds Payable
- Etc.

23 Prepaid Incomes
- 231 Prepaid Interest Income
- 232 Other Prepaid Income Items

3 Net Worth

31 Common Stock
32 Preferred Stock
33
34
35 Paid-In Surplus

- 36 Earned Surplus
  - 361 Operating Income
    - 3611 Sales, Dept. A
    - 3611R Returns and Allowances, Dept. A
    - 3612 Sales, Dept. B
    - 3612R Returns and Allowances, Dept. B
  - 362 Cost of Goods Manufactured
    - 3621 Direct Labor
    - 3622 Direct Material
      - 36221 Direct Material Purchases
      - 36221R Returns and Allowances
      - 36222 Freight-In
    - 3623 Manufacturing Expenses
      - 362301 Indirect Labor
      - 362302 Supplies
      - 362303 Heat, Light, and Water
      - 362304 Power
      - 362305 Repairs
      - 362306 Insurance
      - 362307 Taxes
      - 362308 Depreciation
      - 362309
      - 362310
      - 362311
      - 362312 Miscellaneous
      - Etc.

      Manufacturing Expense Ledger
      (In the event of several departments in the factory, prefix appropriate letter symbol to each number to designate department.)
  - 363 Selling Expenses
    - 36301 Salaries
    - 36302 Supplies
    - 36303 Heat, Light, and Water
    - 36304 Advertising
    - 36305 Repairs
    - 36306 Insurance
    - 36307 Taxes
    - 36308 Depreciation
    - 36309 Delivery
    - 36310 Bad Debts
    - 36311 Telephone and Telegraph
    - 36312 Miscellaneous
    - Etc.

    Selling Expense Ledger
  - 364 Administrative Expense
    - 36401 Salaries
    - 36402 Supplies
    - 36403 Heat, Light, and Water
    - 36404
    - 36405 Repairs
    - 36406 Insurance
    - 36407 Taxes
    - 36408 Depreciation
    - 36409
    - 36410
    - 36411 Telephone and Telegraph
    - 36412 Miscellaneous
    - Etc.

    Administrative Expense Ledger

365 Financial Income and Expense
- 36501 Interest Income
- 36502 Interest Cost
- 36503 Purchase Discount
- 36504 Sales Discount

366 Non-Operating Income and Expense
- 36601 Income
- 36602 Expense

QUESTIONS

1. What title is given to the subsidiary ledger controlled by each of the following general ledger accounts:

a. Accounts Receivable (Trade)
b. Vouchers Payable
c. Manufacturing Expense
d. Selling Expense
e. Administrative Expense
f. Fixed Assets
g. Reserve for Depreciation of Fixed Assets

2. Give illustrations of accounts found in each of the subsidiary ledgers mentioned in question 1.
3. Describe briefly three advantages of the subsidiary ledger.
4. How would you record the adjustment for accrued salesmen's salaries in the general journal if a selling expense ledger were is use?
5. If you were keeping a manufacturing expense ledger, from what two sources would you obtain information to substantiate an entry in that ledger?
6. At the end of January 1934 the following adjusting entry was recorded in the general journal:

	Debit	*Credit*
Manufacturing Expense	$3,000.00	
Selling Expense	600.00	
Administrative Expense	300.00	
Reserve for Depreciation, Fixed Assets		$3,900.00

How was the amount of each debit obtained?
7. As a result of the entry shown in question 6, the Reserve for Depreciation, Fixed Assets, was increased to $21,500.00. What subsidiary ledger contains detailed information which should agree with this total?

PART V

CHAPTER XIII

FIXED ASSETS

Fixed assets may be classified as tangible or intangible. "Strictly speaking, an asset is intangible if its value resides, not in the physical properties of the asset itself, but in the rights (or advantages) which its possession confers upon its owner."[1] Land, buildings, machinery and equipment are tangible fixed assets, whereas goodwill, patent rights, copyrights, trademarks, and franchises are intangible fixed assets.

Another significant classification of fixed assets may be based on how they are affected by physical operations and passage of time.

1. Fixed assets not affected by physical operations or passage of time:
   - *a.* Land which is used for such purposes as a building site, mill yard or railroad siding;
   - *b.* Goodwill;[2]
   - *c.* Trademarks.[3]
2. Fixed assets affected by physical operations and passage of time:
   - *a.* Tangible fixed assets such as buildings, machinery, equipment, furniture, and fixtures are subject to wear and tear from use (physical depreciation) and to obsolescence through the passage of time (functional depreciation).
3. Fixed assets affected by physical operations only:
   - *a.* Tangible fixed assets such as oil and gas wells, mines, and timber become exhausted through extraction or cutting (depletion). Such assets are sometimes known as wasting assets rather than fixed assets.

[1] Finney, "Principles of Accounting," Vol. II, revised edition, Chapter XXXVIII, page 1, Prentice-Hall. 1928.
[2] Affected by financial operations but not physical operations.
[3] Registered trademarks do not expire as do registered patents or copyrights.

4. Fixed assets affected by passage of time only:
   a. Intangible fixed assets such as patent rights, copyrights, and franchises are subject to expiration at some definite future date and hence suffer periodical reductions in value through the passage of time (amortization).

Capital and Revenue Expenditures. If an expenditure increases the cost of fixed assets, it is known as a capital expenditure. If an expenditure increases expenses or cost of goods sold, it is known as a revenue expenditure. Therefore, revenue expenditures have the immediate effect of decreasing profits, whereas capital expenditures affect profit only through depreciation, depletion, or amortization charges which are spread over future periods.

The line of distinction between capital and revenue expenditures is sometimes difficult to draw, but certain well-defined practices have been established in most instances. It is important to realize that an error in this respect has an immediate effect on net profit.

Cost of Fixed Assets. In general, the cost of a fixed asset includes those expenditures which are necessary in bringing it to the point of rendering that service for which it was obtained. For example, the cost of a lathe includes its purchase price, freight charges, and installation charges. In other words, expenditures for freight and installation are capital expenditures and should be debited to the Fixed Asset account as part of its cost.[1] To record either of these items as revenue expenditures, that is as expenses, would cause an understatement of assets and an overstatement of expenses.

The cost of unimproved real estate should include broker's fees, attorney's fee for examination of title, surveying costs, and other similar expenditures which would be made by a prudent purchaser.

The amount paid for improved real estate must be apportioned between the land and the improvements thereon because land is not subject to depreciation and its cost should be segregated in the accounts. Occasionally it may be difficult to determine just what part of the purchase price of improved real estate was paid for the land and what part was paid for the improvements, but the distinction is important in respect to future depreciation charges. Suppose, however, that a plot of ground with an old building standing on it is purchased for $100,000.00 and that immediately thereafter the old building is torn down to make room for the construction of a new building. In that case, the entire $100,000.00 is charged to the Land

[1] But freight-in on merchandise or raw material is, of course, a revenue expenditure.

account. The cost of tearing down the old building is also capitalized in the Land account but the salvage value of any material recovered is credited to the Land account. The *vendor* of improved real estate may record the sale of the land at $70,000.00 and of the building at $30,000.00, but the manner in which the *vendee* records the purchase depends on whether or not he intends to use the building. If he intends to use it, he may apportion the total cost of $100,000.00 to the Land and Building accounts in the same manner in which the vendor apportioned the total, that is, land $70,000.00 and building $30,000.00. If he is buying the building merely because he must do so to obtain the land and so intends to tear down the old building, the entire $100,000.00 is charged to the Land account.

The cost of new construction includes architect's fee, attorney's fee, fees for building permits, insurance costs during the period of construction, cost of temporary structures and other similar expenditures necessary to the completion of the building. Interest expense incurred during construction on money borrowed for purposes of construction is usually capitalized also.

Accountants differ on the question of discount offered on the purchase of fixed assets. Assume that a machine may be purchased for $10,000.00 subject to a 2% discount if payment is made within ten days. Is the cost of the machine $10,000.00 or $9,800.00, and should the cost be affected by the fact that the discount is taken or is not taken?

The orthodox viewpoint seems to be that discount on the purchase of fixed assets and discount on the purchase of merchandise or raw materials should be treated alike in the accounts. Theoretically, however, a distinction can be made between the two cases. Assume that a discount of $200.00 is obtained on a $10,000.00 purchase of merchandise and that this merchandise is sold later for $15,000.00. The profit for the period is not affected by varying the treatment of the discount.

Discount Considered as Income		Discount Considered as Reduction of Cost		
Selling price	$15,000.00	Selling price		$15,000.00
Cost	10,000.00	Cost	$10,000.00	
		Less discount	200.00	
Gross profit	$ 5,000.00			
		Net cost		9,800.00
Income from purchase discount	200.00			
Profit	$ 5,200.00	Profit		$ 5,200.00

Assume, however, that a machine is purchased for \$10,000.00 and that a discount of \$200.00 is obtained when payment is made. It is obvious that the profit for the period of purchase is affected by the treatment of the discount in the accounts.

Discount Considered as Income	Discount Considered as Reduction of Cost
(1) Cost of machine recorded as \$10,000.00	(1) Cost of machine recorded as \$9,800.00
(2) Depreciation of \$1,000.00 per year (10-year life).	(2) Depreciation of \$980.00 per year (10-year life).
(3) Income recorded in year of purchase arising from purchase discount is \$200.00.	(3) No income from purchase discount recorded.

In the first case it is apparent that income from purchase discount of \$200.00 is shown in the year of purchase at the sacrifice of a \$20.00 increase in depreciation expense for each of the ten years. This is a sort of "borrowing from Peter to pay Paul." Perhaps discount on fixed assets should be recorded as a reduction in the cost of the asset irrespective of the treatment afforded to purchase discount on merchandise or raw materials.

Depreciation of Fixed Assets. Recognition of depreciation in the accounts by a debit to depreciation expense and a credit to the reserve for depreciation has two obvious effects as follows:

1. Decreases profit.
2. Decreases the amount of the asset for balance sheet purposes.

Not quite so obvious but of greater significance is the resultant tendency to maintain investment. Assume that an enterprise started business with a cash investment of \$100,000.00 on January 1, 1933, and that immediately thereafter this money was expended for a building. The balance sheet would appear as follows:

Balance Sheet, January 1, 1933

Assets		Liabilities	
Building (Cost)	\$100,000.00	Accounts Payable	None
		Net Worth	
		Capital	\$100,000.00
Total Assets	\$100,000.00	Total Liabilities and Net Worth	\$100,000.00

Assume further that on January 10, 1933, the business purchased merchandise for $2,000.00 on account, but immediately this merchandise was sold for $2,300.00 cash. After paying $2,000.00 cash to the creditor there remained $300.00 out of which expenses of $100.00 were paid. Let it be assumed that during 1933 this procedure was repeated many times, and on December 31, 1933, after paying all liabilities and all expenses, $5,000.00 in cash was on hand. The balance sheet at that date appeared as follows:

BALANCE SHEET, DECEMBER 31, 1933

ASSETS		LIABILITIES	
Building (Cost)	$100,000.00	Accounts Payable	None
Cash	5,000.00	NET WORTH	
		Capital	$105,000.00
Total Assets	$105,000.00	Total Liabilities and Net Worth	$105,000.00

Assuming that a profit of $5,000.00 had been made, and ignoring depreciation of the building, the owner withdrew $5,000.00 in cash from the business. After his withdrawal, the balance sheet appeared as follows:

BALANCE SHEET, DECEMBER 31, 1933

ASSETS		LIABILITIES	
Building (Cost)	$100,000.00	Accounts Payable	None
		NET WORTH	
		Capital	$100,000.00
Total Assets	$100,000.00	Total Liabilities and Net Worth	$100,000.00

If this procedure is continued, and if each year cash profits are withdrawn from the business, then on December 31, 1952, or twenty years after the building was purchased, the balance sheet would appear as last illustrated. It will reveal but one asset, building, at a value of $100,000.00 and a net worth of equal amount.

But assume that on December 31, 1952, the building reaches the end of its useful life and must be torn down and replaced. Assuming further that the cost of demolition exactly offsets receipts from the

sale of salvaged bricks, etc., the balance sheet on that date would appear as follows:

Balance Sheet, December 31, 1952

Assets		Liabilities	
	None		None
		Net Worth	
			None
Total Assets	None	Total Liabilities and Net Worth	None

What has happened? The original investment of $100,000.00 has been lost. The owner has withdrawn $5,000.00 each year thinking it represented profits, but in reality he has taken out of the business only just what he put into it as no profits were earned. He misled himself into believing that a profit had been made by ignoring depreciation of fixed assets. The building cost $100,000.00 and served its purpose for twenty years, at the end of which time it was valueless. Therefore, using the straight-line method, the annual depreciation expense was $5,000.00, which was just equal to the cash profit. If depreciation had been recognized it would have been evident to the owner that no profit had been made. As a result, if he were a prudent business man, he would not have made any withdrawals, and on December 31, 1933, at the end of the first year, the balance sheet would have appeared as follows:

Balance Sheet, December 31, 1933

Assets		Liabilities	
Building (Cost)	$100,000.00	Accounts Payable	None
Less Reserve for Depreciation	5,000.00		
		Net Worth	
Book Value	$ 95,000.00		
Cash	5,000.00	Capital	$100,000.00
Total Assets	$100,000.00	Total Liabilities and Net Worth	$100,000.00

The amount of the building is less, but the new asset (cash) which was secured through operations is retained to maintain the original net worth of $100,000.00. This new asset may not be retained entirely in

the form of cash as time goes on. Some of it may be converted into merchandise or even additional fixed assets. But at the end of twenty years, on December 31, 1952, the balance sheet will reveal $100,000.00 in other assets of some description as follows:

BALANCE SHEET, DECEMBER 31, 1952

Assets		Liabilities	
Building (Cost)	$100,000.00	Accounts Payable	None
Less Reserve for Depreciation	100,000.00		
		Net Worth	
Book Value	None		
Other Assets	$100,000.00	Capital	$100,000.00
Total Assets	$100,000.00	Total Liabilities and Net Worth	$100,000.00

Now if the building becomes worthless on December 31, 1952, no change need be made in the balance sheet except to remove the cost and offsetting reserve for the building. Net worth will remain at $100,000.00.

It is obvious that recognition of depreciation tends to maintain the owner's investment by retaining assets which otherwise might be withdrawn as profits. The word "tend" is used advisedly, because in the first place it is assumed that after deducting depreciation expense no loss at least will be shown, and in the second place it is assumed that estimates of useful life and, hence, estimates of periodical depreciation are reasonably accurate.

New assets are obtained chiefly through sales of merchandise, and as a result they are initially in the form of cash or receivables. If a portion of these assets is retained to offset a decline in fixed asset values, it is reasonable to state that fixed assets are being replaced by current assets. Later, of course, these current assets may in turn be converted into new fixed assets.

Misconceptions of Depreciation. After obtaining a correct concept of depreciation and its effects, it is perhaps wise to point out what depreciation does not do and to differentiate it from "terms that are closely associated with it in common parlance."[1]

1. Recognition of depreciation tends to retain new assets to take the place of declines in fixed asset values, but it does not provide a

[1] G. H. Newlove, "Depreciation," *Journal of Accountancy*, page 432, December 1927.

cash fund for the replacement of these fixed assets. Such new assets, initially in the form of receivables or cash, are not held in these forms by depreciation adjustments. If a cash fund is desired for replacement purposes, such as a building fund, it is necessary to transfer cash from the general checking account to a special savings account by the following entry:

	Debit	Credit
Building Fund[1]	*xx*	
Cash		*xx*

This may be done periodically, but as the cost of replacement may be less or greater than the original cost the amount of periodical contributions to a building fund need have no relation to the amount of periodical depreciation.

2. Depreciation is not a reservation of profits. It is an expense deduction similar to salary expense before profit is determined. Some statements are published showing a net profit before deducting depreciation. Although such a figure may be significant, it is misleading because net profit is a term that should be applied only after depreciation has been deducted.[2]

3. Depreciation is not merely physical deterioration. Deterioration is only one cause of depreciation, the other causes being obsolescence and inadequacy.

4. Depreciation is not a decline in efficiency. A machine may be just as efficient after operating four years as it was the first year, but depreciation has occurred nevertheless. When a machine has reached approximately 70% of its original efficiency, it very possibly has been fully depreciated to its salvage value.

5. Depreciation is not offset by appreciation. If the market value of a fixed asset is considerably greater than book value, that fact is not a valid reason for ignoring depreciation. Normally there is no intention of selling the fixed asset until it has reached the end of its useful life, and at that time it will be worth scrap value only, irrespective of how the market value may have fluctuated previously. As stated in Chapter II, a notation at the bottom of a balance sheet may be made at any time to indicate exceptional market value, if that

[1] Shown on the balance sheet under investments. The fund is composed of cash but it is not available for payment of current liabilities and should be excluded from working capital.

[2] Payment of a dividend to stockholders out of profit which would not have existed if depreciation had been recognized is illegal in most cases. Directors declaring such a dividend may be held liable for its return to the corporation.

information would be significant, but book value should be decreased steadily as usual.

Book Value of Fixed Assets. The excess of the cost of a fixed asset over its reserve for depreciation is known as the book value of the asset, and it is this book value which is included in the total assets figure on the balance sheet. As a matter of fact, book value is not a realistic value. The cost of an asset is the amount originally invested in that asset, the Reserve for Depreciation account merely shows that part of cost which has been charged against past revenues and the so-called book value is simply an estimate of that part of cost which is properly chargeable to future revenues.

Perhaps some of the misunderstanding, apparently existing at present in respect to the significance of the balance sheet, would be avoided if fixed assets were described on the balance sheet like this:

Building (at cost)	$100,000.00	
Less portion of cost which has been charged against past revenue	60,000.00	
Portion of cost estimated to be properly chargeable against future revenue		$40,000.00

rather than in the following usual and orthodox manner:

Building (at cost)	$100,000.00	
Less Reserve for Depreciation	60,000.00	$40,000.00

Definition of Depreciation. Depreciation is the difference between the cost[1] of a fixed asset and any salvage value it may have at the end of its useful service life. The amount of depreciation which is assumed to have occurred in any one period depends on the particular method of computation selected, but in every case an estimate of useful service life and salvage value is necessary.

Computation of Periodical Depreciation. There are only three factors to be considered in the computation of depreciation:

1. Cost
2. Estimated useful service life
3. Estimated salvage value at the end of useful service life

To afford a comparison of the results which are obtained by various methods of computation, cost and estimated salvage value are assumed to be $9,000.00 and $1,000.00, respectively, in each method

[1] For purposes of computing profit subject to the federal income tax some basis other than cost is possible.

illustrated. Estimated useful service life is assumed to be eight years except where that life is to be measured in units other than years.

These symbols are used in the formulae which follow:

C = Cost.
S = Estimated salvage value.
n = Estimated years of useful service life.
D = Yearly depreciation.

Straight-Line Method. This method assumes that every year of an asset's useful service life should absorb the same amount of depreciation. Because the computation is very simple and because the desired effects are obtained this method is commonly used. In fact, any other method is justifiable only under unusual conditions.

$$D = \frac{C - S}{n}$$

Substituting:

$$D = \frac{\$9{,}000.00 - \$1{,}000.00}{8}$$

$$= \underline{\underline{\$1{,}000.00}} \text{ per year}$$

The following table shows the debit and credit of the yearly adjusting entry, the accumulated reserve at the end of each year, and the book value at the end of each year:

Table of Depreciation—Straight-Line Method

Year	Debit to Depreciation Expense	Credit to Reserve	Accumulated Reserve at End of Year	Book Value at End of Year
1	$1,000.00	$1,000.00	$1,000.00	$8,000.00
2	1,000.00	1,000.00	2,000.00	7,000.00
3	1,000.00	1,000.00	3,000.00	6,000.00
4	1,000.00	1,000.00	4,000.00	5,000.00
5	1,000.00	1,000.00	5,000.00	4,000.00
6	1,000.00	1,000.00	6,000.00	3,000.00
7	1,000.00	1,000.00	7,000.00	2,000.00
8	1,000.00	1,000.00	8,000.00	1,000.00

Working-Hours Method. This method is particularly applicable to factory machines. It assumes that machinery depreciates only as it is used and recognizes that a machine which is operated 20 hours each day will wear out faster than if it were operated only 10 hours each day. An estimate is made of the number of working hours of which the machine is capable, instead of the years of useful service. If it is assumed that the cost of a machine is \$9,000.00, that its estimated scrap value is \$1,000.00, and that its estimated life is 20,000 working hours, the hourly rate of depreciation would be computed as follows:

$$D = \frac{C - S}{n}$$

Where $n = 20{,}000$ hours

$$D = \frac{\$9{,}000.00 - \$1{,}000.00}{20{,}000}$$

$$= \underline{\underline{\$0.40}} \text{ per hour}$$

TABLE OF DEPRECIATION—WORKING-HOURS METHOD

Year	Hours in Operation During Year	Debit to Depreciation Expense (Rate = \$0.40 per hour)	Credit to Reserve	Accumulated Reserve at End of Year	Book Value at End of Year
1	2,000	\$ 800.00	\$ 800.00	\$ 800.00	\$8,200.00
2	4,000	1,600.00	1,600.00	2,400.00	6,600.00
3	4,000	1,600.00	1,600.00	4,000.00	5,000.00
4	3,000	1,200.00	1,200.00	5,200.00	3,800.00
5	1,000	400.00	400.00	5,600.00	3,400.00
6	2,000	800.00	800.00	6,400.00	2,600.00
7	1,000	400.00	400.00	6,800.00	2,200.00
8	3,000	1,200.00	1,200.00	8,000.00	1,000.00

If this method is used a record of working hours must be kept. Although functional depreciation may have been considered in estimating the life of 20,000 working hours, it is obvious that no such consideration is given in the allocation of depreciation expense to each year, for if the machine were idle for one entire year no depreciation expense would be charged to that year and certainly functional depre-

ciation has occurred. Also it is quite possible to have physical depreciation while a machine is idle.

Although objections may be made to this method it is, in general, satisfactory and in certain cases even highly desirable.

Production-Unit Method. This method is identical with the working-hours method except that useful service life is estimated in units of products which can be produced by the asset before it is discarded. As in the working-hours method, depreciation is assumed to have occurred only as the unit is used. By substituting "units produced" for "hours in operation" in the heading of the second column from the left of the Table of Depreciation, Working Hours-Method, that table will serve as an illustration for the production-unit method. The rate of depreciation per unit instead of per hour is computed and by multiplying the rate by the units produced in any year the depreciation expense for that year is obtained. On the assumption that 20,000 units can be produced by the asset during which time $8,000.00 depreciation will have occurred the rate of depreciation is $0.40 per unit.

Reducing Charge Method. This method recognizes that the use of a fixed asset produces two factors of cost—repairs and depreciation—and assumes that the sum of these two factors should be fairly uniform throughout the asset's life. As repairs normally increase from year to year it becomes necessary to decrease depreciation expense so that their sum will be the same, approximately, in each successive year. Various methods may be devised to effect this equalization but perhaps the most desirable one is that which is known as the sum of years' digits method.

Let $\Sigma\, n$ = the sum of years' digits contained in the useful service life.

For example, if the useful service life is estimated to be 8 years, then:

$$\Sigma\, n = 1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 = 36$$

Then:

$$D \text{ for first year} = \tfrac{8}{36}(C - S)$$

$$D \text{ for second year} = \tfrac{7}{36}(C - S)$$

$$D \text{ for third year} = \tfrac{6}{36}(C - S)$$

etc.

Table of Depreciation—Sum of Years' Digits Method

Year	Fraction	Debit to Depreciation Expense	Credit to Reserve	Reserve at the End of Each Year	Book Value at the End of Each Year
1	8/36	$1,777.78	$1,777.78	$1,777.78	$7,222.22
2	7/36	1,555.56	1,555.56	3,333.34	5,666.66
3	6/36	1,333.33	1,333.33	4,666.67	4,333.33
4	5/36	1,111.11	1,111.11	5,777.78	3,222.22
5	4/36	888.89	888.89	6,666.67	2,333.33
6	3/36	666.67	666.67	7,333.34	1,666.66
7	2/36	444.44	444.44	7,777.78	1,222.22
8	1/36	222.22	222.22	8,000.00	1,000.00
		$8,000.00			

The debit to depreciation expense and the corresponding credit to reserve for depreciation are computed by taking the year's fraction times $8,000.00. As previously stated, the repair expense is assumed to increase each year in the same proportion that depreciation expense decreases. Objection to this method may be made on the grounds that as a matter of fact repairs will not increase in such a regular manner. But this method has the advantage of conservatism inasmuch as heavy depreciation charges are made in early years.

Many other methods have been devised but in general they are of theoretical interest only.[1] The straight-line, working-hours, and production-unit methods are approved by the United States Bureau of Internal Revenue for federal income tax purposes. Other methods may be acceptable and desirable in certain situations but they are not in common use.

Depreciation Rates. The depreciation of any one period may be expressed in terms of its percentage relation to cost. Thus if an asset which cost $10,000.00 has an estimated life of 10 years and an estimated salvage value of $2,000.00, the annual depreciation (straight-line method) is $800.00. The rate per year is therefore 8% $\left(\frac{\$800.00}{\$10,000.00}\right)$. Usually the rate is based solely on estimated life with the assumption of no salvage value. Thus if estimated life is 10 years, the rate is 10% each year, and in 10 years 100% depreciation is recorded.

[1] See "Accountant's Handbook," page 626. Ronald Press Company.

The Bureau of Internal Revenue of the United States has published a pamphlet entitled "Depreciation Studies" which contains a complete list of suggested rates. These rates are computed on the straight-line method and on the assumption that no salvage value will exist at the end of useful life.

Amortization of Intangible Fixed Assets. When the life of an intangible fixed asset is definitely known, its cost is written down periodically by crediting the asset account directly rather than by crediting a reserve for depreciation. This is known as amortization.[1]

1. *Patents.* A patent is issued for 17 years, and for that reason it is customary to amortize one-seventeenth of its cost each year by debiting amortized patent expense and crediting the patents directly. But if the patent is obtained sometime after it was granted it must be written off in less than 17 years. For example, if a patent is acquired 5 years after it was granted, the cost must be amortized in 12 years. Conservative practice recommends that patents be written off as quickly as possible because they may be superseded by new patents at any time. The value of a patent lies in the advantage it gives to its owner over a competitor, and hence patents should be written off at least as quickly as this advantage disappears.

2. *Copyrights.* A copyright is issued for 28 years with a possibility of renewal for an additional 28 years, but it is usually advisable to amortize copyrights in a much shorter time. Certain publications never exceed a first edition, and in that event the copyright becomes practically worthless after that edition has been sold. In the motion-picture industry, the entire cost of a copyrighted motion picture may be charged against the first year's income from that picture.

3. *Franchises.* The cost of obtaining a franchise should be amortized over the period for which it was granted. If the franchise is perpetual there is no necessity of writing it off except that many franchises become worthless long before they expire. In fact, conservative practice seems to favor complete amortization over a brief period.

Depletion (Wasting) of Fixed Assets. Minerals, oil and gas, coal, other natural deposits, and timber are known as wasting assets although in the balance sheet they may be classified as fixed. Whenever they are removed from their natural state or position the original quantity is thereby reduced. This reduction of the original quantity is known as depletion.

To illustrate, assume that $80,000.00 is paid for 100 acres of land

[1] To amortize means to reduce or extinguish gradually

which are estimated by geological survey to contain 50,000 tons of coal. The transaction would be entered as a debit to coal lands and a credit to cash or vouchers payable. A depletion charge of $1.60 per ton is computed by dividing the total cost by the estimated tons. If during the first year 10,000 tons are extracted, the depletion charge for that year is $16,000.00, and the following entry would be made:

	Debit	*Credit*
Depletion Cost	*16,000.00*	
Reserve for Depletion, Coal Lands		*16,000.00*

Depletion cost is a cost of production and theoretically is quite similar to the manufacturer's raw material cost. The depletion reserve is deducted from the wasting asset on the balance sheet.

Depletion is a reduction in the physical quantity or weight of an asset, whereas depreciation is a reduction in the useful life of an asset. When a wasting asset has been fully depleted physically as well as on the books it no longer exists in its original form.

Significance of Depletion.[1] Recognition of depletion tends to maintain investment. New assets such as cash or receivables are obtained from the sale of coal, timber, mineral, oil, or gas. By recognizing depletion cost a portion of these new assets is retained in the business to offset the decline in wasting asset values. In this respect only, depletion is similar to depreciation.

Depletion Dividends. "While both depreciation and depletion must be provided for before the net profits are known, depletion on such wasting assets as mines, oil wells, and timber lands need not be deducted in computing the amount of dividends which may be legally paid. The theory of the law is that stockholders and creditors, knowing the nature of the business, should realize that the receipts from sales are in part profits and in part a return of investment. If the return of investment were not legally distributable among the stockholders, the corporation would be obliged to hold the funds [2] until the exhaustion of the property. This would be advisable if the corporation expected to acquire and operate another similar property, but not otherwise. The law therefore allows the corporation to follow the financial policy best suited to its plans, it being assumed that the creditors are not injured because of their knowledge of the business." [3]

[1] A complete discussion of depletion is not possible here. Reference should be made to government publications if detailed information is desired on various depletion methods.

[2] New assets retained.

[3] Finney, "Principles of Accounting," Volume II, Chapter XL, page 10. Prentice-Hall. 1928.

True dividends are paid out of profits after deducting depreciation and depletion, but an additional "depletion dividend" may be declared.

Amount of Periodical Depreciation May Be Affected by Depletion of Wasting Asset. Buildings and equipment which are used in the operation of a mine, oil or gas well, or timber tract must be depreciated, and the extent of their useful service life may be limited to the life of the wasting asset. To illustrate, assume that ordinarily the useful service life of a railroad siding is ten years, but that it is used solely to transport logs from a lumber camp to the river. If the timber tract will be depleted in five years, the useful life of the railroad siding is limited to five years also. Of course, consideration must be given to salvage value as it may be significant when useful service life is shortened prematurely by the exhaustion of a wasting asset.

QUESTIONS

1. Which of the assets listed below are subject to depreciation? To depletion? To amortization?

   Land (building site); building; patents; copyright; coal land; delivery equipment; oil fields; 30-year franchise; registered trade mark.

2. Which of the following transactions may be termed a capital expenditure, and which may be termed a revenue expenditure?

   a. Purchased a delivery truck on account.
   b. Purchased a delivery truck for cash.
   c. Paid salaries for month.
   d. Paid face of note due today.
   e. Paid interest on note due today.
   f. Purchased merchandise on account.
   g. Paid freight on merchandise purchased.
   h. Paid freight on adding machine purchased for office.

3. Journalize the following:

   a. Purchased a machine for $300.00 on account.
   b. Paid $30.00 freight on this machine.
   c. Paid $10.00 to install this machine.
   d. Paid for machine and received a 2% discount.

4. Journalize the following:

   A piece of real estate was purchased as a factory site on January 1, 1933, at a cost of $120,000.00 including legal fees of $300.00 and the architect's fee of $6,000.00. An old frame house on the lot was torn down at a cost of $600.00 cash. Salvaged materials sold for $100.00 cash.

   A factory building was constructed at a total cost of $200,000.00, and finally the lot was graded and planted at a cost of $800.00.

5. A member of the board of directors requests that you as their accountant justify a deduction for depreciation expense during 1933, when it is a fact that fixed assets of the corporation are stated on the balance sheet of December 31, 1933, at only $360,000.00 whereas their undisputable market value on that date was $600,000.00.

6. Explain how functional depreciation might be ignored in the allocation of depreciation to each period by the working-hours method.

7. A machine cost $6,000.00 on January 3, 1933, and is estimated to be capable of operating 30,000 hours. Assuming no scrap value, what is the depreciation expense chargeable to 1933 if the machine operated 1,600 hours during that year;

8. What is the difference between the working-hours method and the production-unit method?

9. On what theory is the reducing charge method based?

10. A machine costing $10,000.00 has an estimated life of four years, and an estimated salvage value of $400.00. What is the depreciation for the first and second years by the sum of years' digits charge method?

11. Criticize the following: "Depreciation reserves should never exceed 50% of the cost of the asset because property could not be used if it were 50% depreciated."

12. Fixed assets of the General Machinery Corporation cost $600,000.00. Depreciation has been recorded at 5% annually ($30,000.00 each year), and on January 1, 1933, the reserve was $300,000.00. The president then suggested that an entry be made debiting the Reserve for Depreciation with $300,000.00 and crediting the Fixed Asset account with $300,000.00. He points out that the depreciation for 1933 may then be shown at only $15,000.00 (5% of the $300,000.00 balance remaining in the Fixed Asset account). This he further contends will effect a higher net profit in 1933. What in reality is the president suggesting?

13. A certain manufacturer is planning to replace ten men with a machine. What important element of cost must he consider?

14. A patent was issued to Brown on January 1, 1920. Five years later the Savoy Corporation purchased the patent from Brown for $24,000.00. Show the adjusting entry for this patent on the books of the Savoy Corporation at December 31, 1925.

15. Compare depletion and depreciation.

16. Smith owned a share of stock in the Shady Mining Company and received a $10.00 dividend. In what two ways could this be interpreted by Smith?

17. The president of a railroad company is opposed to the recording of depreciation. He argues that the road bed, locomotives, etc., are kept in perfect condition and are as good as new. Replacements of assets are made regularly as they become worn out or obsolete and therefore the physical and functional conditions of the railroad are maintained at 100% efficiency. In other words, he argues that costs of repair and replacements should be shown as expenses of operation in place of depreciation expense and that all equipment should be shown on the balance sheet at its cost figure rather than at book value. It follows then that freight and passenger rates should be established by the Interstate Commerce Commission at figures which will cover all costs of operation, repairs, replacements, and also insure a fair return on the investment in equipment at *replacement* cost. Do you agree?

18. A tract of land is purchased for $50,000.00. It is estimated to contain 100,000 tons of coal. Machinery and buildings are erected at an additional cost of $30,000.00 and operations are started January 1, 1932. Equipment is purchased at this time for $5,000.00. Production has been planned at 20,000 tons per year. The United States Government suggests rates of depreciation for such fixed assets as follows:

Frame buildings	5%
Machinery	4%
Equipment	10%

At the end of the first year 25,000 tons had been mined. Show the adjustment for depletion and depreciation at December 31, 1932. Machinery and buildings will be abandoned when the coal is completely exhausted but the equipment may be transferred conveniently to another location.

CHAPTER XIV

FIXED ASSETS (CONTINUED)

Sale of a Fixed Asset. Before the sale of a fixed asset is recorded in the accounts, it is necessary to record depreciation from the date of the last adjustment for depreciation to the date of the sale. To illustrate, assume that on January 1, 1940, the Building account had a balance of $100,000.00, and the Reserve for Depreciation of Building account had a balance of $40,000.00. Assume further that the rate of depreciation is 2% of cost annually, and that the books are closed December 31 of each year. If the building is sold on April 1, 1940, for $80,000.00, the following entries should be made:

April 1, 1940

Depreciation Expense	*500.00*	
Reserve for Depreciation of Building		*500.00*

(To record depreciation expense for the three-month period, January 1, 1940, to April 1, 1940.)
3/12 of 2% of $100,000 = $500.00

April 1, 1940

Cash	*80,000.00*	
Reserve for Depreciation of Building	*40,500.00*	
Building		*100,000.00*
Profit on Sale of Building		*20,500.00*

(To record the sale of the building.)

Cost of Building		*$100,000.00*
Res. for Dep. 1-1-40	*$40,000.00*	
Dep. 1-1-40 to 4-1-40	*500.00*	*40,500.00*
Book value at 4-1-40		*$ 59,500.00*
Selling Price		*80,000.00*
Profit on Sale		*$ 20,500.00*

The Profit on Sale of Building account may be closed directly to Earned Surplus or, for that matter, the entry might have credited the profit directly to the Earned Surplus account. It is considered better practice, however, to show the profit (or loss) on the disposal of fixed assets as a non-operating income (or expense) in the statement of profit

and loss, and to close the account to profit and loss rather than directly to earned surplus. An excess of book value over selling price is recorded, of course, as a loss.

Trade-In of Fixed Asset. It is common practice to trade in old equipment such as trucks, office equipment, and machinery on new but similar equipment. A trade-in allowance for the old equipment is agreed upon and deducted from the cost of the new equipment, and a cash payment is made for the difference. Depreciation from the date of the last adjustment for depreciation to the date of the trade-in should be recorded first, as in the case of a sale. The difference between the book value of the old equipment at the date traded and the trade-in allowance is a profit or loss on the trade-in. To illustrate: Assume that a truck was purchased on January 1, 1936, at a cost of $3,000.00 and that depreciation of $600.00 has been recorded annually. The book value of the truck on January 1, 1939, would be $1,200.00 ($3,000.00 − $1,800.00). Assume that it was traded on that date for a truck costing $4,000.00 on the following terms:

Cost of new truck	$4,000.00
Trade-in allowance on old truck	2,000.00
Cash payment	$2,000.00

The transaction would be recorded as follows (depreciation to date having been recorded, no further entry in that respect is necessary):

Truck	4,000.00	
Reserve for Depreciation	1,800.00	
Truck		3,000.00
Cash		2,000.00
Profit on trade-in		800.00
(To record trade-in of truck #— on new truck #—)		

Cost of new truck	$4,000.00
Trade-in allowance	2,000.00
Cash payment	$2,000.00
Cost of old truck	$3,000.00
Reserve for Depreciation	1,800.00
Book Value	$1,200.00
Trade-in allowance	2,000.00
Profit on trade-in	$ 800.00

The Truck account must be relieved of the cost of the old truck, and the amount of depreciation recorded on the old truck to date must be removed from the Reserve for Depreciation account.[1] A profit or loss on a trade-in should be given the same treatment in the accounts as a profit or loss on a sale.

Revision of Depreciation. Some time during the life of a fixed asset, it may become apparent that it has a shorter or longer life than was originally estimated. To illustrate, consider the facts given below:

Date machine was purchased	January 1, 1936
Cost	$12,000.00
Original estimate of useful life	10 years
Depreciation per year (straight-line, assuming no scrap value)	$1,200.00

On January 1, 1940, it is decided that the machine will be useful only until January 1, 1942. In that event the actual useful life of the asset is six years (January 1, 1936 to January 1, 1942) rather than ten years, as was originally estimated, and depreciation per year is $2,000.00 rather than $1,200.00. Depreciation for 1940 will be $2,000.00. Depreciation for the past four years, 1936 through 1939, has been understated $800.00 each year—a total of $3,200.00 for the four years. The correcting entry would be as follows:

January 1, 1940

Earned Surplus	*3,200.00*	
Reserve for Depreciation—Machinery		*3,200.00*
(*To correct profits for 1936, 1937, 1938, and 1939 for understatement of depreciation at $800.00 per year.*)		

[1] The Revenue Act governing the federal income tax does not recognize a profit or loss on a trade-in of this character. The Revenue Act reasons, in effect, that the investment in the new truck is the cash disbursed plus the book value (unrecovered investment) of the old truck which was traded in. The entry which reflects this reasoning is as follows:

Truck	3,200.00	
Reserve for Depreciation	1,800.00	
Truck		3,000.00
Cash		2,000.00

Cost of old truck	$3,000.00
Reserve	1,800.00
Book value	$1,200.00
Cash	2,000.00
Basis of new truck	$3,200.00

The basis of the new truck for purposes of depreciation would be $3,200.00.

Present accounting theory would favor showing this correction of the profits of prior years in the statement of profit and loss for 1940 (the year in which the correcting entry was made) rather than in the statement of surplus for 1940. The $3,200.00 would be included in the non-operating section of the 1940 statement of profit and loss and might be described as:

"Adjustment to operating profit of the years 1936, 1937, 1938, and 1939 resulting from an understatement of depreciation expense in the amount of $800.00 in each year."

If it is found that the useful life of a fixed asset is greater than was originally estimated, the correcting entry will debit the reserve account and credit earned surplus for the excess depreciation recorded to the date of correction (or the credit might be made to non-operating income in the year of correction).

Appraisals. Appraisals disclose the replacement cost, the sound value, and the insurable value of a fixed asset.

1. Replacement cost is an estimate of what an existing fixed asset would have cost had it been constructed or acquired at current labor and material prices.

2. Sound value is replacement cost, less the depreciation which would have accrued on replacement cost from the date of purchase to the date of appraisal. In computing the accrued depreciation, new estimates of useful service life and salvage are sometimes substituted for obviously incorrect original estimates.

3. Insurable value is sound value less non-insurable items such as cost of excavation, foundations, portions of the plumbing, sewage, architects' fees, and others.

Appraisals are made to:

1. Determine insurable value.
2. Reflect the sound values of fixed assets in a balance sheet which is employed in obtaining credit or in floating a bond issue.
3. Determine a fair price for fixed assets when their sale is contemplated.
4. Correct past depreciation charges which are obviously inconsistent with estimated future life.

Appraisals are made by appraisal engineers, not accountants. After a complete appraisal has been made, it may be kept up to date from period to period with comparatively little effort.

Recording Appraisals in the Ledger Accounts. As a general rule, the first three purposes of an appraisal, as enumerated above,

can be fully served without giving effect to appraisal figures in the accounts, but the fourth purpose should be reflected in the accounts. In any event, if an appraisal is recorded, care must be exercised to provide a full disclosure of all facts.

Effect on the Balance Sheet. A balance sheet which reflects the results of an appraisal will show fixed assets at their sound value. If this value is greater than the book value, then the total of fixed assets is increased. As a result, net worth is increased also, and the amount of this increase is shown as surplus from appraisal under the net worth section of the balance sheet. A surplus of this nature is unrealized and as such it is not available for distribution in the form of dividends. The balance sheet must reflect this fact by showing surplus from appraisal as a separate item rather than including it in earned surplus or paid-in surplus.

If sound value is less than book value, the total of fixed assets is decreased. As a result, net worth is decreased also, and the amount of this decrease may be reflected in a reduction of any existing surplus or in a reduction of the stated amount of capital stock. This procedure results in a conservative balance sheet, but it may have an opposite effect on future statements of profit and loss. Profits of future years will tend to be larger if depreciation is based on a replacement value which is lower than cost. In this situation, investors may gain a false impression of the earning power of their investment unless facts are properly disclosed.

Recording Appraisals. Sound value may not equal book value for two reasons:

1. The appraisal may reveal that the asset will have a longer or shorter life than was originally estimated or that scrap value will be more or less than was originally estimated.
2. The purchasing power of the dollar may be more or less on the date of the appraisal than it was when the asset was purchased.

A change in estimated life, scrap value, or both requires correction of depreciation which has been recorded in prior periods. Corrections of this nature were explained earlier in this chapter under Revision of Depreciation. On the other hand, a change in the purchasing power of the dollar has no effect on depreciation if depreciation is concerned only with the amortization of actual cost.

In the author's opinion, that part of an appraisal which revises life or scrap value should be recorded in the accounts, but that part which reflects merely a change in the purchasing power of the dollar

should not be. In actual practice, however, the entire appraisal is frequently recorded. There are no serious objections to such practice if the facts are fully disclosed and if entries reflecting a change in purchasing power only are segregated from entries which reflect a change in estimated life or scrap value.

Illustration of One Method of Recording Appraisals. The McClure Corporation purchased a building on January 1, 1936, at a total cost of $50,000.00, exclusive of the land. At that time it was estimated that the useful life of the building would be 40 years and that salvage value at the end of that time would be about $10,000.00.

Depreciation has been recorded at the rate of $1,000.00 annually, and on January 1, 1941, the ledger accounts appeared as below:

Building			Reserve for Depreciation—Building		
Jan. 1, 1936	50,000.00			Dec. 31, 1936	1,000.00
				Dec. 31, 1937	1,000.00
				Dec. 31, 1938	1,000.00
				Dec. 31, 1939	1,000.00
				Dec. 31, 1940	1,000.00

An appraisal of the building was made as of January 1, 1941, for the purpose of determining insurable value. The appraisal revealed the following facts:

Estimated useful life from Jan. 1, 1941	45 years
Estimated scrap value at end of life	$15,000.00

Since the building was acquired on January 1, 1936, five years have elapsed to the date of appraisal, January 1, 1941. Apparently the original estimate of life should have been 50 years instead of only 40 years. The correction of past depreciation is indicated in the following computation:

	Original Estimate	*Corrected Estimate*
Cost	$50,000.00	$50,000.00 *
Scrap value	10,000.00	15,000.00
Total depreciation	$40,000.00	$35,000.00
Useful life	40 years	50 years
Annual depreciation	$ 1,000.00	$ 700.00

* Original cost is not affected by appraisal.

Depreciation for the past five years has been overstated at the rate of \$300.00 per year or a total of \$1,500.00 for the five years. The correcting entry is as follows:

January 1, 1941

Reserve for Depreciation—Building	*1,500.00*	
Earned Surplus		*1,500.00*
To correct profits of prior five years based on appraisal which indicates that depreciation per year should have been \$700.00 instead of \$1,000.00.		

After posting this entry, the reserve will have a balance of only \$3,500.00 which represents the corrected estimate of depreciation for the five years, 1936 to 1940 inclusive, at \$700.00 per year.

The adjusting entry on December 31, 1941, to record depreciation for 1941 will be for \$700.00 only.

The appraisal also revealed that if the building had been purchased at prices which prevailed on January 1, 1941, the cost would have been \$80,000.00 rather than \$50,000.00. Pretending that the building had cost \$80,000.00, what would the reserve for depreciation be on January 1, 1941?

Pretended cost (replacement cost)	\$80,000.00
Scrap	15,000.00
Total to be depreciated	\$65,000.00
Estimated life	50 years
Annual depreciation	\$ 1,300.00
Depreciation for five years	\$ 6,500.00

The schedule below is a comparison of the situation on January 1, 1941, based on actual cost, and the situation which would have existed had the building cost \$80,000.00.

	Actual Cost	*Replacement Cost*	*Difference*
Cost	\$50,000.00	\$80,000.00	\$30,000.00
Reserve at Jan. 1, 1941	3,500.00	6,500.00	3,000.00
Book value at Jan. 1, 1941	\$46,500.00	\$73,500.00	\$27,000.00

Sound value of \$73,500.00 exceeds book value of \$46,500.00 by \$27,000.00. This increase in the stated value of the building may be recorded by the following entry:

January 1, 1941

Building, Gross Appreciation	*30,000.00*	
Reserve for Depreciation—Building, Gross Appreciation		*3,000.00*
Surplus from Appraisal		*27,000.00*

This entry superimposes an imaginary cost on the record of actual cost. To avoid confusion, the imaginary cost is set up in a separate account. Separate reserves for depreciation should accompany each element of cost also.

After recording the appraisal on January 1, 1941, the accounts affected will appear as shown below:

Building

Jan. 1, 1936	50,000.00		

Building—Gross Appreciation

Jan. 1, 1941	30,000.00		

Reserve for Depreciation—Building

Jan. 1, 1941	1,500.00	Dec. 31, 1936	1,000.00
Bal.	3,500.00	Dec. 31, 1937	1,000.00
		Dec. 31, 1938	1,000.00
		Dec. 31, 1939	1,000.00
		Dec. 31, 1940	1,000.00
	5,000.00		5,000.00
		Bal. Jan. 1, 1941	3,500.00

Reserve for Depreciation—Building, Gross Appreciation

		Jan. 1, 1941	3,000.00

Surplus from Appraisal

		Jan. 1, 1941	27,000.00

A balance sheet prepared immediately after the appraisal has been recorded would show the building somewhat as follows:

Building:

	Actual	*Appraisal Increase*	*Total*	
Cost	$50,000.00	$30,000.00	$80,000.00	
Reserve	3,500.00	3,000.00	6,500.00	
Book Value	$46,500.00	$27,000.00		$73,500.00

On December 31, 1941, depreciation on cost will be recorded as follows:

Depreciation Expense	*700.00*	
Reserve for Depreciation—Building		*700.00*
(To record depreciation for the year 1941.)		

Depreciation of the superimposed, imaginary, cost will be recorded also on December 31, 1941, as follows:

Surplus from Appraisal	*600.00*	
Reserve for Depreciation—Building, Gross App.		*600.00*
To reduce surplus from appraisal by the depreciation of the imaginary cost element. At the end of the life of the building there can be no surplus from appraisal and the $30,000 in the Building, Gross Appreciation account must be entirely offset by its reserve. Hence, $27,000.00 must be transferred from surplus to the reserve during the 45 years remaining from Jan. 1, 1941. This is at the rate of $600.00 a year.		

Final Disposition of the Accounts. Forty-five years after the date of the appraisal, the accounts would appear as shown:

Building

Debit	Credit
50,000.00	

Building—Gross Appreciation

Debit	Credit
30,000.00	

Reserve for Depreciation—Building

Debit	Credit
	35,000.00

Reserve for Depreciation—Building, Gross Appreciation

Debit	Credit
	30,000.00

Surplus from Appraisal

Debit	Credit
30,000.00	30,000.00

A sale of the building, at that time, for its scrap value of $15,000.00 would be recorded as follows:

(1)

Cash	*15,000.00*	
Reserve for Depreciation—Building	*35,000.00*	
Building		*50,000.00*

(2)

Reserve for Dep.—Building, Gross Appreciation	*30,000.00*	
Building, Gross Appreciation		*30,000.00*

Depreciation on Replacement Cost. In a period of rising costs, when replacement cost exceeds original cost, it has been suggested

that depreciation expense should be based on replacement cost rather than on actual cost. This is a moot point. The thought behind such a suggestion is that the physical plant must be maintained irrespective of how high prices may rise, and that to maintain the original investment only is not sufficient when a much larger expenditure will be necessary to replace the asset. On the other hand, it is contended that the purpose of depreciation is to recover the cost of assets only, and that it was never meant to provide for their replacement. That is, depreciation of a fixed asset is one thing, and replacement of that asset is another thing. The author, in general, favors depreciation on cost irrespective of appraisal values.

It has been argued, recently, that: "One cannot have his cake and eat it too"; or, "You must take the bitter with the sweet." If the balance sheet is to show high appraisal values for fixed assets, it would seem that the statement of profit and loss must take the consequences and show depreciation expense on these same high values.

It might be assumed, however, that this is only further argument against showing appraisal values which reflect an increase in price level. If depreciation expense must be based on actual cost, and if "One cannot have his cake and eat it too," appraisal values are *not* acceptable for balance sheet purposes.

QUESTIONS

1. A machine cost $6,000.00. Depreciation of $600.00 is being recorded annually on December 31. On January 1, 1934, book value was $4,200.00. If the asset is sold on March 1, 1934, what entry must be made before the sale is recorded?

2. On January 1, 1933, the ledger shows fixed assets at $100,000.00 and reserve for depreciation $100,000.00. These assets were purchased January 1, 1923, and have been depreciated on the straight-line basis. If now, on January 1, 1933, it is estimated that they have five additional years of useful life remaining, what entry should be made? What adjusting entry for depreciation will be made on December 31, 1933?

3. What is meant by replacement cost? Sound value? Insurable value?

4. Why are appraisals made?

5. Give two reasons why sound value may be more or less than book value.

6. The accounts listed below could be considered as memoranda accounts only:
   Building, Gross Appreciation
   Reserve for Depreciation, Building, Gross Appreciation
   Surplus from Appraisal

Why?

7. What is the significance of the statement, "One cannot have his cake and eat it too," in respect to appraisal values?

8. The purchase of office supplies should be written off to expense only as they are used, and this writing off to expense has no relation to the purchase of additional office supplies to be made in smaller or larger quantities or at a lower or higher price. It has been pointed out that the same reasoning applies to the pur-

chase of a fixed asset and that the recording of depreciation has no relation to replacement of fixed assets. Do you agree? Discuss.

9. A corporation scraps and sells for $500.00 cash an engine which had cost $5,000.00 and which has been in operation three years. Depreciation has been recorded annually at 10% of cost. Draft journal entry or entries to record the sale.

10. A company purchases at auction for $20,000.00 certain machinery having a replacement value of $35,000.00. For insurance purposes the company wishes to place this machinery on the books at full value. Draft the necessary entry or entries and discuss.

CHAPTER XV

CORPORATE ACCOUNTS AND RECORDS

There are two basic methods of recording the authorization, subscription and issue of par value capital stock. The method which is more frequently used may be designated as the Negative Method because the par value of the stock which has been issued is obtained indirectly from two accounts. The second method may be designated as the Positive Method because the par value of the stock issued is obtained directly from one account.

Assume the following:

1. The charter authorized the issue of 1,000 shares of stock with a par value of $100.00 each.
2. Subscriptions were received for 600 shares at par.
3. Subscriptions were subsequently collected in full.
4. Six hundred shares of stock were issued.

The entries to record these facts, under each method, are as follows:

Negative Method

(1)

Capital Stock Unissued 100,000.00
Capital Stock Authorized ... 100,000.00
To record the authorization of 1,000 shares, par $100.00 each.

(2)

Subscriptions Receivable ... 60,000.00
Capital Stock Subscribed 60,000.00
To record the subscription of 600 shares at par.

Positive Method

(1)

(No entry is made. A notation of the authorization is made in the Capital Stock Issued account in the ledger.)

(2)

(Same as Negative Method.)

(3)

Cash	60,000.00	
Subscriptions Receivable		60,000.00

To record the collection of all subscriptions receivable.

(3)

(Same as Negative Method.)

(4)

Capital Stock Subscribed	60,000.00	
Capital Stock Unissued		60,000.00

To record the issue of 600 shares of stock.

(4)

Capital Stock Subscribed	60,000.00	
Capital Stock Issued		60,000.00

To record the issue of 600 shares of stock.

The accounts, after posting these entries, would appear as below.

Negative Method

CAPITAL STOCK UNISSUED

(1)	100,000.00	(4)	60,000.00

CAPITAL STOCK AUTHORIZED

		(1)	100,000.00

CAPITAL STOCK SUBSCRIBED

(4)	60,000.00	(2)	60,000.00

SUBSCRIPTION RECEIVABLE

(2)	60,000.00	(3)	60,000.00

CASH

(3)	60,000.00		

Positive Method

CAPITAL STOCK ISSUED
($100,000.00 AUTHORIZED)

		(4)	60,000.00

CAPITAL STOCK SUBSCRIBED

(4)	60,000.00	(2)	60,000.00

Subscriptions Receivable				Cash			
(2)	60,000.00	(3)	60,000.00	(3)	60,000.00		

List of Account Balances

Negative Method			*Positive Method*		
Cash	$ 60,000.00		Cash	$60,000.00	
Capital Stock Authorized.		$100,000.00	Capital Stock Issued.		$60,000.00
Capital Stock Unissued..	40,000.00				
	$100,000.00	$100,000.00		$60,000.00	$60,000.00

The two methods show the same information but in a different manner. The negative method shows both the amount authorized and unissued so that it is easy to determine at any time the amount issued. In the positive method the amount issued is shown directly, and the amount which is unissued is easy to determine at any time by a comparison with the amount authorized and shown in the heading of the Capital Stock Issued account.

Subscriptions to Stock. It is customary to obtain subscriptions to stock when the corporation is organized. Subscription lists are prepared upon which each subscriber signs his name and indicates the number of shares of stock which he intends to purchase, the subscription price per share, and the total amount of the subscription.

The terms of subscription frequently call for a down payment of some amount, the remainder to be paid in installments at specific future dates, or upon demand by the corporation.

Entries to record subscriptions and collections thereon are the same for the negative and positive methods.

When subscriptions are received, the Subscriptions Receivable account is debited, and when collections are made, this account is credited. A debit balance in the Subscriptions Receivable account represents the amount of uncollected subscriptions. Typical entries to record the subscription of stock at various prices are illustrated in the following pages.

Entries to record subscriptions at (1) par, (2) a premium, and (3) a discount:

(1)

	Debit	Credit
Subscriptions Receivable	60,000.00	
Capital Stock Subscribed		60,000.00
To record subscriptions for 600 shares of stock, par \$100.00 each, at par.		

(2)

	Debit	Credit
Subscriptions Receivable	66,000.00	
Premium on Capital Stock		6,000.00
Capital Stock Subscribed		60,000.00
To record subscriptions for 600 shares of stock, par \$100.00 each, at a premium of 10%. (\$110.00 each.)		

(3)

	Debit	Credit
Subscriptions Receivable	54,000.00	
Discount on Capital Stock	6,000.00	
Capital Stock Subscribed		60,000.00
To record subscriptions for 600 shares of stock, par \$100.00 each, at a discount of 10%. (\$90.00 each.)		

It should be observed that the Subscriptions Receivable account is charged with the amount which subscribers agree to pay irrespective of the par of the stock.

If a down payment is received at the time of subscription, the debit to the Subscriptions Receivable account will be reduced by the amount of cash received.

	Debit	Credit
Cash	13,200.00	
Subscriptions Receivable	52,800.00	
Premium on Capital Stock		6,000.00
Capital Stock Subscribed		60,000.00
To record the subscription of 600 shares of stock, par \$100.00 each, at a premium of 10%. Terms: 20% down and balance due 30 days after call.		

600 @ 100 =	\$60,000.00
10% premium =	6,000.00
Total	\$66,000.00
20% down	13,200.00
Balance	\$52,800.00

If subscriptions are collectible in installments, it is customary to set up the amount of each installment in a separate account.

	Debit	Credit
Cash	13,200.00	
Call #1	26,400.00	
Call #2	26,400.00	
Premium on Capital Stock		6,000.00
Capital Stock Subscribed		60,000.00

To record the subscription of 600 shares of stock, par $100.00 each, at a premium of 10%. Terms: 20% down and the remainder in two equal calls due 30 and 60 days after date, respectively.

600 @ $100		= $60,000.00
10% premium		= 6,000.00
Total		$66,000.00
20% down		13,200.00
Balance		
Due in 30 days	$26,400.00	
Due in 60 days	26,400.00	$52,800.00

The accounts with Call 1 and Call 2 take the place of the Subscriptions Receivable account. Thirty days after the subscription date the corporation will call upon each subscriber to pay in 40% of his original subscription.

Original subscription		= 100%
Down payment		= 20%
Balance		
Call #1	40%	
Call #2	40%	80%

As cash is collected the proper call account is credited.

Balance Sheet Treatment. Uncollected subscriptions receivable, as shown by the Subscriptions Receivable or Call accounts, are shown in the balance sheet in three ways:

(1) As current assets (receivables) provided that they are to be collected in the near future.

(2) As other assets (see code of accounts in Chapter XII) provided that they will be collected eventually but not in the near future.

(3) In the net worth section of the balance sheet as a deduction from the par value of the stock subscribed, plus or minus the premium or discount, to obtain the amount collected on subscriptions.

The third method is illustrated below:

NET WORTH:			
Capital Stock—1,000 shares authorized, par $100.00 each:			
Issued—200 shares at par		$20,000.00	
Subscribed—600 shares at par	$60,000.00		
Premium	6,000.00		
Total subscription	$66,000.00		
Subscriptions receivable	52,800.00		
Paid in on subscribed stock		13,200.00	
Total amount paid in on capital stock			$33,200.00

Many accountants favor the use of the third method irrespective of when collections are to be made.

Subscribers Ledger. The subscribers ledger is a subsidiary ledger containing an account with each subscriber. Each subscriber's account is debited with the amount of his subscription and is credited with collections received on the subscription. The relation of the Subscriptions Receivable account to the subscribers ledger is similar to that of the Accounts Receivable account to the customers ledger. The Subscription Receivable account is a controlling account because it shows in summary form what the subsidiary subscribers ledger shows in detail. As previously explained, Call accounts sometimes take the place of the Subscriptions Receivable account.

Rights of Subscribers.

The question frequently arises as to whether subscribers to capital stock, where the amount due under the subscription has not been paid in full to the corporation, are entitled to dividends. Cook states that 'Accordingly there can be no lawful discrimination in the division of dividends, although the subscription price of a part of the stock is due and unpaid'; and further that 'The unpaid and uncalled subscription liability of the stockholder on his stock may by agreement be paid by applying a dividend thereto.' This would indicate that a subscriber has the right to receive dividends even though his subscription is not fully paid. In fact, it can be fairly said that, with the acceptance of the subscription by the corporation, the subscriber becomes a stockholder, with all the rights, privileges, and obligations of one. He may not avoid his responsibility as a stockholder and he is entitled to a stockholder's rights and privileges.[1]

[1] Taylor and Miller, "Intermediate Accounting," second edition. McGraw-Hill Accounting Series.

Issue of Stock. While a subscriber may have all the rights and privileges of a stockholder, it is not advisable for the corporation to *issue* stock to a subscriber until his subscription has been paid in full. In some cases stock certificates are made out before subscriptions have been collected in full. In that event the corporation should keep the certificates under control until the full subscription price has been received, or at least until the corporation has collected that part of the subscription price which it intends to collect. If a stock certificate is actually delivered to the subscriber before his subscription has been collected, he might sell it to a third party who would assume the full status of a stockholder but who would have no liability to the corporation for any unpaid balance of the original subscription. This would be to the disadvantage of the corporation, of course.

Unless otherwise stated, it will be assumed that stock is not issued until the subscription price has been collected in full.

Entries to record the issue of stock will vary depending on the method employed. A debit is made to capital stock subscribed for the par of the stock issued in each case, but in the negative method the credit is to the Capital Stock Unissued account at par, and in the positive method the credit is to the Capital Stock Issued account at par.

The Stock Certificate Book and the Stockholders Ledger. The stock certificate book has been described in a previous chapter. The total of all shares issued may be obtained from the stubs of this book, and this total should agree with the shares issued as indicated in the balances of the Capital Stock Authorized and Capital Stock Unissued accounts (negative method) or the Capital Stock Issued account (positive method).

In addition to the stock certificate book, a separate account with each stockholder is kept in a stockholders ledger. Each stockholder's account is credited with the shares issued to the stockholder and is debited with shares which he has returned to the corporation for cancelation or for transfer to another stockholder. The entries usually show dates, number of shares, and certificate numbers and omit par values. The capital stock accounts in the ledger, the stock certificate book, and the stockholders ledger must be in agreement as to the number of shares outstanding.

More Than One Class of Stock. A complete and separate set of records and accounts should be kept for each class of stock. An adequately descriptive title should be subtitled for the word Capital. To

illustrate, instead of capital stock subscribed, the titles Class A Common Stock Subscribed or 6% Preferred Stock Subscribed might be used.

Typical entries illustrated (Negative Method):

(1)

6% Preferred Stock Unissued	100,000.00	
Common Stock Unissued	500,000.00	
6% Preferred Stock Authorized		100,000.00
Common Stock Authorized		500,000.00
To record the authorization of 1,000 shares of 6% preferred stock of $100.00 par each and 10,000 shares of common stock of par $50.00 each.		

(2)

Cash	50,000.00	
Common Stock Unissued		50,000.00
To record the issue of 1,000 shares of common stock for cash at $50.00 per share without formal subscription.		

(3)

Subscriptions Receivable, 6% Preferred	55,000.00	
6% Preferred Stock Subscribed		50,000.00
Premium on 6% Preferred Stock		5,000.00
To record subscriptions for 500 shares of 6% Preferred Stock at $110.00 per share.		

(4)

Cash	55,000.00	
Subscriptions Receivable, 6% Preferred		55,000.00
To record collection in full for 500 shares at $110.00 per share.		

(5)

6% Preferred Stock Subscribed	50,000.00	
6% Preferred Stock Unissued		50,000.00
To record the issue of 500 shares of preferred stock upon collection of subscriptions in full.		

(6)

Cash	20,000.00	
Call #1, Common	40,000.00	
Call #2, Common	40,000.00	
Common Stock Subscribed		100,000.00
To record subscription of 2,000 shares of common stock at par; terms 20% down, balance in two equal calls.		

(7)

Cash	40,000.00	
Call #1, Common		40,000.00
Collection of Call #1 in full.		

(8)

Cash	38,000.00	
Call #2, Common		38,000.00
Collection of Call #2. One subscriber for 100 shares failed to pay his second call.		

100 @ $50 .... = $5,000.00

20% down .... $1,000.00—Paid

1st Call .... $2,000.00—Paid

2nd Call .... $2,000.00—Unpaid

(9)

Common Stock Subscribed	95,000.00	
Common Stock Unissued		95,000.00
To record issue of 1,900 shares of common upon final collection of subscription price. 100 Shares originally subscribed were in default.		

(10)

Common Stock Subscribed	5,000.00	
Call #2		2,000.00
Due Defaulting Subscriber		3,000.00
To cancel subscription of 100 shares upon default at second call. (Amounts paid in by defaulting subscriber are returnable in most States after expenses of re-subscription are deducted.)		

No-Par Stock. Many states permit stock to be issued without a designated par value. Two advantages of no-par stock are:

1. The par value printed on a certificate of stock is no indication of its value. Unfortunately, however, many uninformed people are misled by the similarity of amounts printed on paper stock certificates and amounts printed on paper money. The absence of any indication of value on the stock certificate has the advantage of creating a question as to its value in the minds of purchasers. The natural inclination to assume that the actual value of a share of stock has some relation to its par value is avoided in no-par stock.

2. No-par stock may be issued at varying prices without recording a premium or discount. In fact, there can be no discount or premium on no-par stock. Stock discount or premium measures the variations of subscription price from par value, and since par value does not exist in no-par stock, there can be no discount or premium. Purchasers of par value stock at a discount may incur a liability to creditors equal to the discount, in case the creditors cannot be satisfied out of existing corporate assets. Purchasers of no-par stock do not face that contingency.

Entries for No-Par Stock. The positive method must be used in recording no-par stock transactions because there is no such thing as the amount of no-par stock authorized. The authorization is in number of shares only, and no value is designated in the charter or on the certificates.

A No-Par Stock Issued account should be credited for the price at which the stock is issued even though the stock may be issued at different prices from time to time. To illustrate, assume that:

(1) 1,000 shares of no-par stock are authorized.
(2) 500 shares are immediately issued for cash at $30.00 per share.
(3) Subscriptions for 200 shares at $25.00 each are received later.
(4) The subscriptions are collected.
(5) Subscribed stock is issued.

(1)

A notation of the number of shares authorized is made in the heading of the No-Par Stock Issued account.

(2)

Cash	15,000.00	
No-Par Stock Issued		15,000.00
To record the issue of 500 shares at $30.00 per share.		

(3)

Subscriptions Receivable, No-Par	5,000.00	
No-Par Stock Subscribed		5,000.00
To record subscriptions for 200 shares at $25.00 per share.		

(4)

Cash	5,000.00	
Subscriptions Receivable, No-Par		5,000.00
To record collection of subscriptions in full.		

(5)

No-Par Stock Subscribed	5,000.00	
No-Par Stock Issued		5,000.00
To record the issue of 200 shares at $25.00 per share.		

Treasury Stock. When a corporation acquires its own stock by purchase or by donation, such stock is termed treasury stock providing the corporation intends to reissue it rather than retire it. And strictly speaking, such stock should be termed "reacquired stock," rather than "treasury stock," if it has been issued originally at a discount.

States generally impose some restrictions on the acquisition of treasury stock. If a corporation were permitted to buy and sell its own stock without regulation or restriction, it would be in a position to take advantage of other buyers and sellers in the open market.

Par value treasury stock may be recorded in the accounts at par, and any difference between the price of acquisition and par may be absorbed in other accounts, as indicated by the following entries:

(1)

Treasury Stock, Common, par $100.00	1,000.00	
Paid-In Surplus (or Earned Surplus[1]*)*	100.00	
Cash		1,100.00
To record the purchase of 10 shares of the corporation's own Common Stock, par $100.00 each, at $110.00 per share.		

(2)

Treasury Stock, Common, par $100.00	1,000.00	
Paid-In Surplus		100.00
Cash		900.00
To record the purchase of 10 shares of the corporation's own Common Stock, par $100.00 each, at $90.00 per share.		

(3)

Treasury Stock, Common, par $100.00	1,000.00	
Paid-In Surplus		1,000.00
To record the acquisition by donation from stockholders of 10 shares of the corporation's own stock, par $100.00 each.		

No-Par Value Treasury Stock may be recorded in the accounts at cost irrespective of the price paid.

(1)

Treasury Stock, No-Par Common	1,100.00	
Cash		1,100.00
To record the acquisition of 10 shares of the corporation's own no-par stock at $110.00 per share.		

(2)

Treasury Stock, No-Par Common	900.00	
Cash		900.00
To record the acquisition of 10 shares of the cortion's own no-par stock at $90.00 per share.		

(3)

(No-par treasury stock acquired by donation is set up in the ledger by noting the number of shares only. No amount entry is made)

Balance Sheet Treatment. Treasury stock is sometimes shown in the balance sheet as an asset under the classification of investments. In this case it is generally stated at cost and, in that event, surplus is not affected when the treasury stock is acquired irrespective of

[1] If paid-in surplus does not exist, earned surplus is charged.

whether it is par or no-par value stock. But it is better practice to show treasury stock as a deduction from issued stock to obtain the stock issued and outstanding. Here *par value* treasury stock is carried in the accounts at its par value, and the difference between par and cost is absorbed by paid-in surplus as previously explained in the illustrative entries. Treasury stock is not entitled to receive dividends or to vote. In fact its status is that of unissued stock and it would seem that it should be treated as such in the balance sheet.

Illustration of Balance Sheet Treatment

Net Worth:			
Preferred 6% Cumulative; 10,000 shares of $100.00 par each authorized:			
Issued	8,000 shares	$800,000.00	
Treasury Stock, at par	500 shares	50,000.00	
Outstanding	7,500 shares		$750,000.00
Common no par; 10,000 shares authorized:			
Issued	10,000 shares	$263,400.00	
Treasury Stock, at cost	430 shares	85.000.00	
Issued	9,570 shares		178,400.00
Total Capital Stock			$928,400.00

In certain states, such as New York, a corporation's investment in its own stock may not exceed the amount of its earned surplus. The relation of the *cost* of treasury stock to earned surplus may be shown in the balance sheet as follows:

Earned Surplus:		
Invested in Treasury Stock	$150,000.00	
Remainder	210,000.00	
Total		$360,000.00

This is merely a division, or earmarking, of earned surplus and no entries are necessary.

Reissue of Treasury Stock. When par value treasury stock is reissued the Treasury Stock account is credited for the par of the stock and the difference between par and selling price is absorbed in surplus.

(1)

Cash	1,200.00	
Paid-In Surplus		200.00
Treasury Stock, Common, par \$100.00		1,000.00
To record the sale of 10 shares of treasury stock at \$120.00 per share.		

(2)

Cash	920.00	
Paid-In Surplus (or Earned Surplus)	80.00	
Treasury Stock, Common, par \$100.00		1,000.00
To record the sale of 10 shares of treasury stock at \$92.00 per share.		

The reissue of no-par treasury stock is treated in various ways but one commendable method is to credit the Treasury Stock account with the average cost of the treasury shares held at the date of reissue.

(1)

Cash	300.00	
Paid-In Surplus		50.00
Treasury Stock, No-Par, Common		250.00
To record the sale of 10 shares of no-par treasury shares at \$30.00 per share.		

(Assume that, prior to this sale, the corporation had acquired:

20 shares at \$27.50	= \$550.00
and 10 shares at \$20.00	= 200.00
30 shares at \$25.00	\$750.00)

As treasury stock is disposed of, prior earmarking of earned surplus (to show the relation of the cost of treasury stock held to total of earned surplus) should be eliminated, of course.

Dividends. A dividend (cash or stock) is usually declared by the directors in the form of a resolution phrased something like the following:

"We hereby declare a cash (stock) dividend of 6% on the outstanding common stock as of this date, January 2, 1941, as of record February 1, 1941, payable March 1, 1941."

(1) Accounting treatment assuming a cash dividend:

On January 2, 1941 the bookkeeper should record the following entry in the general journal:

January 2, 1941

Earned Surplus	6,000.00	
Cash Dividend Payable, Common		6,000.00
To record 6% dividend on \$100,000 outstanding common stock as declared per minutes of directors' meeting Jan. 2, 1941.		

A cash dividend payable is shown in the balance sheet as a current liability.

On February 1, 1941 no entry is made, but a list of stockholders, showing the number of shares owned by each, should be prepared from the stockholders ledger.

On March 1, 1941 a voucher is prepared, the dividend checks are mailed to the stockholders, and the bookkeeper makes the following entry in his voucher register:

Cash Dividend Payable, Common	6,000.00	
Vouchers Payable		6,000.00

And in the check register:

Vouchers Payable	6,000.00	
Cash		6,000.00

(2) Accounting treatment assuming a stock dividend:

On January 2, 1941 the bookkeeper should make the following entry in the general journal:

January 2, 1941

Earned Surplus	6,000.00	
Common Stock Dividend Payable		6,000.00

The Common Stock Dividend Payable account however is not a liability. It will not have to be paid like a cash dividend. Common stock dividend payable of $6,000.00 should be shown in the balance sheet of January 31, 1941, as an addition to capital stock issued or merely as an addition to surplus. To illustrate:

Net worth section of balance sheet before stock dividend was declared:

Capital Stock Issued	$100,000.00	
Earned Surplus (Assumed)	20,000.00	$120,000.00

Net worth section of balance sheet after stock dividend was declared:

Capital Stock Issued	$100,000.00	
Stock Dividend Payable	6,000.00	
	$106,000.00	
Earned Surplus	14,000.00	$120,000.00

or

Capital Stock Issued		$100,000.00	
Earned Surplus: Free	$14,000.00		
Appropriated for Stock Dividend	6,000.00	20,000.00	$120,000.00

No entry is made February 1, 1941, but, as with the cash dividend, a list of stockholders is prepared at this time.

On March 1, 1941, the bookkeeper records the following entry in the general journal:

Common Stock Dividend Payable	6,000.00	
*Common Stock Issued**		6,000.00

*Or Common Stock Unissued if that account has been set up originally.

Stock would be issued to the stockholders in the proportion of 1 new share for each $16\frac{2}{3}$ old shares. Generally the stock dividend is declared as 100%—meaning one new share for each old share held; or as 50%—meaning 1 new share for each 2 old shares held. Obviously the corporation must make provisions for buying up claims of fractional shares.

After the new stock has been issued as a dividend, the net worth section will appear as follows:

NET WORTH:		
Capital Stock Issued	$106,000.00	
Earned Surplus	14,000.00	$120,000.00

The net effect of the stock dividend is to transfer $6,000.00 from earned surplus to capital stock. Net worth is not affected, and certainly working capital is not affected.

A stock dividend "freezes" the profits in the business. Surplus which otherwise might have been distributed to stockholders is capitalized. It is as if a cash dividend were paid but with the definite understanding that stockholders immediately would repay the $6,000.00 to the corporation and receive new stock. Thus, we might conclude that the stock dividend forces the stockholder to reinvest his share of the profits.

Legality of Dividends. Under what conditions does a company have a legal right to declare a cash dividend? It is difficult to state general rules which are not subject to exceptions because the laws of the various states differ in their regulations, especially with respect to dividends on no-par stock. In general it may be said that a corporation has a right to declare and pay a cash dividend equal to the amount of its earned surplus. In some states, however, a dividend may be declared out of paid-in surplus also.

Dividends in Arrears on Preferred Stock. Dividends which have been omitted on cumulative preferred stock are known as dividends in arrears. The corporation does not have a liability in respect to

these dividends, however. A dividend is not a liability unless it has been declared, and once it has been declared it is no longer in arrears.

The corporation may never declare any dividends, of course, but if it does, all dividends in arrears on cumulative preferred stock must be paid before any dividends are paid to common stockholders. Dividends in arrears on preferred stock should be mentioned in a footnote on the balance sheet for the information of common stockholders and prospective investors—they should not be shown as liabilities.

Stated Value of No-Par Stock. The No-Par Stock Issued account may be credited for the amount received when the stock is issued, as illustrated on page 230. In general, however, the directors of a corporation may elect to state the amount of no-par stock at any figure which is not less than the minimum amount fixed by the state, such as 50 cents, $1.00, or $5.00 per share. No-par stock which was issued at $30.00 per share could be stated at only $10.00 per share if the directors so elect. Any excess of the amount paid in over the stated amount should be shown as paid-in surplus and the no-par stock, with a stated value of $10.00, assumes some of the accounting aspects of stock with a par value of $10.00. For example, entries for no-par treasury stock with a stated value would be similar to those for par-value stock, the stated value being substituted for par value.

QUESTIONS

1. Describe three methods of showing uncollected subscriptions to capital stock on the balance sheet.

2. Name the general ledger accounts which control the following subsidiary ledgers:

   a. Customers Ledger
   b. Stockholders Ledger
   c. Subscribers Ledger

3. What account in the general ledger, if any, shows the amount of no-par stock authorized?

4. How are the following items shown in the balance sheet?

   a. Discount on Stock
   b. Premium on Stock
   c. Treasury Stock

5. The X Corporation has issued 1,000 shares of common stock, par $100.00 each, but has reacquired 100 of these shares as treasury stock. A 10% dividend is declared. What is the amount of the dividend?

6. How should dividends in arrears on preferred stock be shown in the balance sheet?

7. The Dandy Company was organized January 2, 1941, with an authorized capitalization of 1,000 shares of 5% cumulative, non-participating preferred stock of $100.00 par value each and 1,000 shares of no-par common stock.

Subscriptions were received for 600 shares of preferred at a premium of 10% on the following terms: 40% down and the balance in two equal calls.

Subscriptions for 500 shares of common were received at $30.00 per share. Prepare the necessary entries.

8. The Y Corporation was organized with authorized capital stock of $100,000.00, representing 1,000 shares of $100.00 par value each. Half this stock was sold for cash at $90.00 per share and the following entry was made:

Cash	$45,000.00	
Capital Stock		$45,000.00

Is this entry a proper one? How would you record it?

9. Make journal entries to record the following by the negative method:

a. A corporation is organized with $100,000.00 of common stock, par $100.00 each, and $100,000.00 of preferred stock, par $100.00 each.
b. The common stock is fully subscribed at par.
c. Subscriptions are received for 800 shares of the preferred at $110.00 per share.
d. Common subscribers pay in full and shares are issued.
e. Subscribers to 400 shares of the preferred pay their subscriptions in full and shares are issued.

10. Make journal entries to record the transactions of question 9 by the positive method.

11. Show net worth section of balance sheet after the transactions of questions 9 and 10. Assume that no other transactions had occurred.

12. *a.* Journalize the following:

(1) Issued 100 shares of 6% preferred stock, par $100.00 each, for $10,000.00 cash.
(2) The corporation reacquired 10 shares of those issued in (1) by paying $1,050.00 cash.
(3) Four shares of the treasury stock acquired in (2) were sold for $380.00 cash.

b. Show how the preferred stock section of net worth would appear in the balance sheet as a result of the transactions above.

Assume no other transactions, and assume also that the charter authorizes the issue of 200 shares of the 6% preferred stock.

13. *a.* Journalize the following:

(1) Issued 100 shares of no-par common for $6,000.00 cash.
(2) Issued an additional 50 shares of no-par common for $2,500.00 cash.
(3) Reacquired 10 shares of no-par common for $400.00 cash.
(4) Reacquired 10 shares of no-par common for $500.00 cash.
(5) Four of the reacquired shares are sold for $220.00 cash.

b. Show how the no-par common stock section of net worth would appear in the balance sheet as a result of the transactions described above.

Assume no other transactions, and assume also that 200 shares of no-par common are authorized.

14. Journalize the following:

a. Subscriptions received for 100 shares of common stock, par value of $100.00 each, at par. Terms are 20% in cash and the balance in two equal calls.
b. Collected $3,600.00 cash on first call. (One subscriber defaults. Assume that amounts paid in by defaulting subscriber must be returned in full.)
c. Collected $3,400.00 cash on second call. (Another subscriber defaults.)
d. Issued certificates to fully paid subscribers. (Assume negative method.)

PART VI

CHAPTER XVI

BASIC PROCEDURES OF SPECIFIC ORDER COST ACCOUNTING

The activity of the factory should be correlated to the activity of the sales department. Obviously, the factory cannot be permitted to manufacture goods without plan. It is the function of the production manager to provide this correlation, to determine what goods the factory should produce and to issue to the factory what are generally known as *production orders*.

Production Order. A production order may authorize the factory to make one article or one hundred articles. It may authorize the manufacture of a specific lot of goods which has been ordered by an identified customer, according to his peculiar specifications, or it may authorize the making of a certain quantity or number of a standard article, for unidentified customers, to be placed in stock upon completion, ready for future sales. Thus, the production order may authorize the factory to produce 1,000 desks of a certain type, 500 pounds of standard ¾-inch bolts, or one special-type locomotive. A production order may include more than one item, but only when those items are identical. Ordinarily, if ¾-inch and ½-inch bolts are to be produced, separate orders would be issued.

Factory cost accounting is primarily concerned with the proper allocation of manufacturing costs to each production order, so that costs will attach to each order as it proceeds through the factory to its completion.[1]

Each production order is given a number for convenient identification or reference and a cost sheet is prepared for each order whereon the attaching costs may be recorded. A *production order cost sheet* is illustrated on page 248.

Material Cost. Factory cost accounting requires perpetual inventory methods. As material is purchased, it is charged to an inventory

[1] This chapter does not include a discussion of process cost accounting which places emphasis on a departmental segregation of costs.

account rather than to a purchase account. As the material is used, the inventory account is credited so that the balance of this account will always show the cost of material on hand. This inventory account is usually called the *Stores* account because its balance is the cost of the material which should be in the factory storeroom or storehouse.

Most manufacturing processes require the use of many different kinds of materials so that it is necessary to keep a subsidiary *stores ledger*. This ledger contains a perpetual inventory account for each kind of material. The relation of the Stores account to the stores ledger parallels the relation of the Accounts Receivable account to the customers ledger. The controlling account shows in a summary manner what the subsidiary ledger shows in detail.

Procedure for Materials Purchased. When material which has been purchased arrives at the factory, the receiving clerk prepares a report of its description and quantity. This *receiving report* may be prepared in triplicate—one copy is retained by the receiving clerk, another copy is sent with the material to the factory, and a third copy is sent to the accounting department where it is compared with the invoice. The invoice is not vouchered until it is known that the goods received correspond to those ordered and also to the items listed on the invoice. If there are no discrepancies the receiving report is costed; that is, the costs shown on the invoice are entered on the receiving report. The invoice is then vouchered and recorded in the voucher register as a debit to stores and a credit to vouchers payable. The voucher register usually has a special column in which to record the debits to stores, and the total of this column is posted monthly as a debit to the Stores account in the general ledger.

In the meantime, the *costed receiving report* has been sent to the stores ledger clerk and he has charged the proper material accounts in his ledger.

The monthly debit to the Stores account will agree in total with the debits made in the stores ledger, if some mechanical error has not been made.

Procedure for Materials Issued. The receiving clerk sends the material to the factory storeroom for safekeeping. The person who is in charge of the storeroom, usually called the *storekeeper,* is responsible for all materials placed in his care and it is his duty to see that no materials are taken from the storeroom except when properly requisitioned by the factory.

Requisitions on the storeroom for material to be used in the factory are called *stores requisitions.* Stores requisitions may be prepared by

the production manager, who knows the kind and quantity of material needed to complete each production order which he has issued. The stores requisition may be prepared in triplicate—one copy is retained by the production manager, a second copy is retained by the storekeeper and a third copy is sent to the stores ledger clerk.

RECEIVING REPORT No.______

Received from ______(Name of vendor.)______

Date received________ Received by __(Receiving clerk signs here.)______

Remarks______(Condition may be noted.)______

Quantity	Description	Unit Cost	Total
(Quantity and description entered by receiving clerk.)		(Cost entered by accounting department from information on invoice.)	

Received into stores by __(Upon receiving the material, the storekeeper signs the receiving clerk's copy here.)__

Entered in stores ledger by___(Stores ledger clerk signs here.)___

ILLUSTRATION OF COSTED RECEIVING REPORT.

Upon receipt of the stores requisition, the stores ledger clerk turns to the material accounts in his ledger to determine the cost of the materials issued. He records the cost on the stores requisition and at the same time credits the proper material accounts. If the requisition is for direct material, it is sent to the production order cost clerk who charges the cost of the materials to the proper production order. If the requisition is for indirect material, it is sent to the accounting department for entry in the manufacturing expense ledger.

Periodically, the costed stores requisitions are summarized to show the total cost of material issued. A journal entry is made debiting work in progress for direct material and manufacturing expense [1] for indirect material. The Stores account is credited with the total. It should be noted that this credit to stores agrees, in total, with the credits which have been made to the material accounts in the stores ledger. The Stores account has been debited with all materials pur-

STORES REQUISITION NO.________

Date________________

Delivered to________(Person receiving material signs here.)________

Credit Stores Ledger Item No.____80____

Charge Production Order No.__3__Charge Manufacturing Expense________

Quantity	Description	Unit Cost	Total
(Entered by Production Dept. or by factory foreman.)		(Entered by stores ledger clerk from costs shown in the stores ledger accounts.)	

Entered in stores ledger by________(Stores ledger clerk signs here.)________

Entered on production order cost sheet or in manufacturing expense ledger by________________

ILLUSTRATION OF COSTED STORES REQUISITION.

chased and credited with all materials issued to the factory. The balance will be the cost of material on hand in the storeroom. Corresponding debits and credits have been made in the stores ledger so that the sum of the account balances in this ledger should agree with the balance of the Stores account.

[1] As explained in a previous chapter, the Manufacturing Expense account in the general ledger is a control account for the manufacturing expense ledger.

Description 2″ × 4″ fir studding—16 feet long

Location in Storeroom Section A–3

Item No. 82

Maximum 3,000 pieces

Minimum 800 pieces

	In				Out				Balance		
Date 1941	Receiving Report No.	Quantity	Unit Price	Total	Stores Req. No.	Quantity	Unit Price	Total	Quantity	Unit Price	Total
Jan. 5	26	1,000	.45	450 00					1,000	.45	450 00
8					46	30	.45	13 50	970	.45	436 50

(Entries are made in the In section by the stores ledger clerk from costed receiving reports.)

(Entries are made in the Out section by the stores ledger clerk from costed stores requisitions.)

(Balances are extended after each entry. When quantity approaches 800 units, the stores ledger clerk should notify the purchasing department.)

(The stores ledger is comprised of cards like this, one for each kind of material. The sum of the amounts in the total column of the Balance section should agree with the balance of the Stores account which controls the stores ledger.)

Illustration of a Material Account in the Stores Ledger.

Stores Account in General Ledger (Controls Stores Ledger):

Stores

Cost of materials purchased posted monthly from total of stores column in the voucher register.	*Cost of material issued posted monthly from journal entry. Amount of entry is obtained from summary of stores requisitions issued during month.*

(Balance is cost of material which should be in the storeroom.)

Material Accounts in Stores Ledger (Controlled by Store Account):

(One for each kind of material)

Cost of material received is entered daily from costed receiving reports.	*Cost of material issued is entered daily from costed stores requisitions.*

(Sum of the balances of these accounts should equal the balance of the Stores account.)

The entries for material purchased and issued may be summarized as follows:

Materials purchased:

Entry on voucher register:

Stores	*xxx*	
Vouchers Payable		*xxx*

Entry on stores ledger:
Debit the various material accounts from the costed receiving report.

Materials issued:

Entry in general journal from monthly summary of costed stores requisitions:

Work in Process	*xxx*	
Manufacturing Expense	*xxx*	
Stores		*xxx*

Entry on stores ledger:
Credit the various material accounts from costed stores requisitions.

Entry on production order cost sheets:
Enter the cost of direct material used on each production order from the costed stores requisitions.

Entry in manufacturing expense ledger:
Enter the cost of indirect material used in the proper expense account from the costed stores requisition.

Labor Cost.

Each factory workman keeps a record of time spent on each production order, by punching time cards. He uses a separate card each day for each production order on which he is engaged. When the card is turned into the office, it shows the workman's number, the production order, and the time worked. Clerks enter the hourly rate and compute the total labor cost.[1]

Employee Name	John Jerry
Number	282
Rate	.84 per hour
Time started	8:00 A.M.
Time finished	10:30 A.M.
Total time	2 hours 30 minutes
Total	$2.10
Production Order	# 1
Approved	
Date	

ILLUSTRATION OF INDIVIDUAL DAILY TIME TICKET.

Direct labor costs may be entered on the production order cost sheets directly from these individual daily time tickets. However, these tickets may be summarized periodically, according to production order numbers, and entries on the production order cost sheets may be made from these summaries. This would simplify the cost sheets by eliminating much detail because a large number of daily time tickets may apply to one production order.

The tickets also may be summarized periodically, according to employees, and payrolls may be prepared from these summaries.

[1] Finney, "Introduction to Principles of Accounting," Revised Edition, page 381 (1938).

Direct labor cost is recorded in the general journal when the payroll is prepared. The entry would be as follows:

Work in Progress	*xxx*	
Accrued Payroll		*xxx*

To record direct labor cost incurred. The amount of this entry is the total of all daily individual time tickets which have been entered on production order cost sheets during the period covered by the payroll.

After this, the payroll is vouchered and recorded as a debit to Accrued Payroll and a credit to Vouchers Payable. The employees are paid by issuing a check in payment of the voucher in the usual manner.

In this way, each production order cost sheet accumulates its direct labor cost and the total is charged to the Work in Progress account.

It must be noted that the procedure just described applies to direct labor only. Indirect labor is a manufacturing expense and must be charged to that account rather than to the Work in Progress account. Payrolls which include both direct and indirect labor are recorded as follows:

Work in Progress (Direct labor)	*xxx*	
Manufacturing Expense (Indirect labor)	*xxx*	
Accrued Payroll		*xxx*

Manufacturing Expense (Factory Overhead). Each production order can be charged with direct material cost from costed stores requisitions and with direct labor cost from individual daily time tickets. But it is impossible to attach manufacturing expenses to specific production orders except by estimate.

Expenses such as power, light, heat, lubricants, factory supplies, indirect labor and depreciation, taxes and insurance on factory assets are important factors in the cost to manufacture and production orders must absorb these expenses as well as the costs of direct material and labor.

There are many methods of allocating manufacturing expense to production orders, depending on the peculiarities of the production process. One method only will be explained in this necessarily brief and elementary discussion.

At the beginning of the year an estimate is made of the total manufacturing expense which will be incurred for that year. This estimate should be based on a budget of operations because the amount of expense will vary, in many instances, with the percentage of capacity at which the factory is expected to operate. An estimate is made,

also at the beginning of the year, of the total amount of direct labor cost to be incurred during the year. The relation of these estimates may be expressed as a percentage. Let us assume:

Estimated manufacturing expense	= \$ 30,000.00
Estimated direct labor cost	= \$100,000.00

Manufacturing expense is 30% of direct labor cost and hence each production order should absorb manufacturing expense equal to 30% of its direct labor cost.

Manufacturing expense should be entered on the production order cost sheets (1) when a production order is completed or (2) at the end of the period for those production orders which are still in process.

The amount of manufacturing expense entered on production order cost sheets during a period will be simply 30% of the direct labor cost for the period. An entry should be made in the general journal for this amount as follows:

Work in Progress	*xxx*	
Manufacturing Expense		*xxx*

In the meantime the actual manufacturing expenses have been charged to the Manufacturing Expense account. Debits to the Manufacturing Expense account come from the voucher register where a special column is usually provided to record those vouchers covering the purchase of light, heat, power, insurance, and various factory expense items. Adjusting entries in the general journal, such as the entry to record depreciation of factory assets, will be another source of debits to the Manufacturing Expense account. Indirect labor and material costs will come from the general journal also.

Manufacturing Expense

(actual) ↗	↖ (applied)[1]

The expense applied to production orders, which is based on estimates, may be more or less than the actual expense. In fact, it would

[1] The credit may be made to a Manufacturing Expense Applied account rather than directly to Manufacturing Expense. The Manufacturing Expense account controls a subsidiary expense ledger (as explained in a previous chapter) and it is perhaps advantageous to have the actual and applied amounts in separate accounts. The principles involved are not affected by this alternate treatment.

be very unusual if the amounts of applied and actual expense agreed.

An over-application of manufacturing expense produces a credit balance in the Manufacturing Expense account. An under-application produces a debit balance. The amount of over- or under-application is theoretically a correction of the cost of production orders in progress, those finished and on hand, and those sold. Theoretically, therefore, a debit or credit balance in the Manufacturing Expense account should be closed against the Work in Progress account, the Finished Goods account and the Cost of Goods Sold account, proportionately. In practice, however, the amount of under- or over-application is frequently shown as a correction of the Cost of Goods Sold alone, or it is shown as a sundry expense or income on the profit and loss statement.

Work in Progress. The Work in Progress account is charged with direct material cost, direct labor cost, and applied manufacturing expense. As production orders are completed the cost sheets are summarized and removed from the in-progress file. Periodically an entry is made in the general journal as follows:

Finished Goods	*xxx*	
Work in Progress		*xxx*
To transfer the total cost of production orders completed from Work in Progress to Finished Goods.		

After this entry, the balance of the Work in Progress account represents the inventory of incompleted production orders. This balance should agree with the production order cost sheets in the in-progress file.

Finished Goods. When the factory has completed a production order, the finished goods are sent to the finished goods warehouse. The production order cost sheet is removed from the in-progress file and sent to the finished goods ledger clerk. This clerk is in charge of a ledger containing an account with each kind of finished product. He enters the date, quantity and cost on the debit or IN side of the proper account and places the production order cost sheet in a file of completed orders.

Cost of Goods Sold. The finished goods ledger clerk receives a duplicate copy of each sales invoice, and he records thereon the cost of the products sold from information shown in the finished goods ledger. At the same time he enters the cost on the credit, or OUT, side of the proper account in his ledger. Periodically the costed duplicate copies of sales invoices are summarized to obtain the total cost of goods sold and an entry is made in the general journal as follows:

Cost of Goods Sold	*xxx*	
Finished Goods		*xxx*
To record the cost of goods sold as obtained from costed duplicate copies of sales invoices.		

BLANK MFG. CO. COST SHEET FOR PROD. ORDER NO. 1

Manufactured for Stock

Description 50 desks—"Efficient" Style

Date started Jan. 20, 1941

Date to be completed Jan. 25, 1941

DIRECT MATERIAL		
Date	Ref.	Amount
(Entered by production order cost clerk from costed stores requisitions or recapitulations of same.)		
Total		

DIRECT LABOR		
Date	Ref.	Amount
(Entered by production order cost clerk from individual job time tickets, or recapitulations of same.)		
Total		

OVERHEAD APPLIED	
Date	Amount
(Entered by production order cost clerk on a predetermined basis.)	
Total	

SUMMARY	
Direct Material	
Direct Labor	
Overhead Applied	
Total cost	

Remarks:

ILLUSTRATION OF A PRODUCTION ORDER COST SHEET.

After this entry, the balance of the Finished Goods account will represent the inventory of finished goods on hand and this balance should agree with the sum of the account balances in the finished goods ledger.

Description "Efficient" Desks

Location in Finished Goods Warehouse Section C—2nd floor

Date 1941	In				Out				Balance		
	Production Order No.	Quantity	Unit Cost	Total	Sales Inv. No.	Quantity	Unit Cost	Total	Quantity	Unit Cost	Total
Jan. 25	1	50	8.80	440.00					50	8.80	440.00
28					326	10	8.80	88.00	40	8.80	352.00

(Entries are made in the In section by the finished goods ledger clerk from cost sheets of production orders as they are completed.)

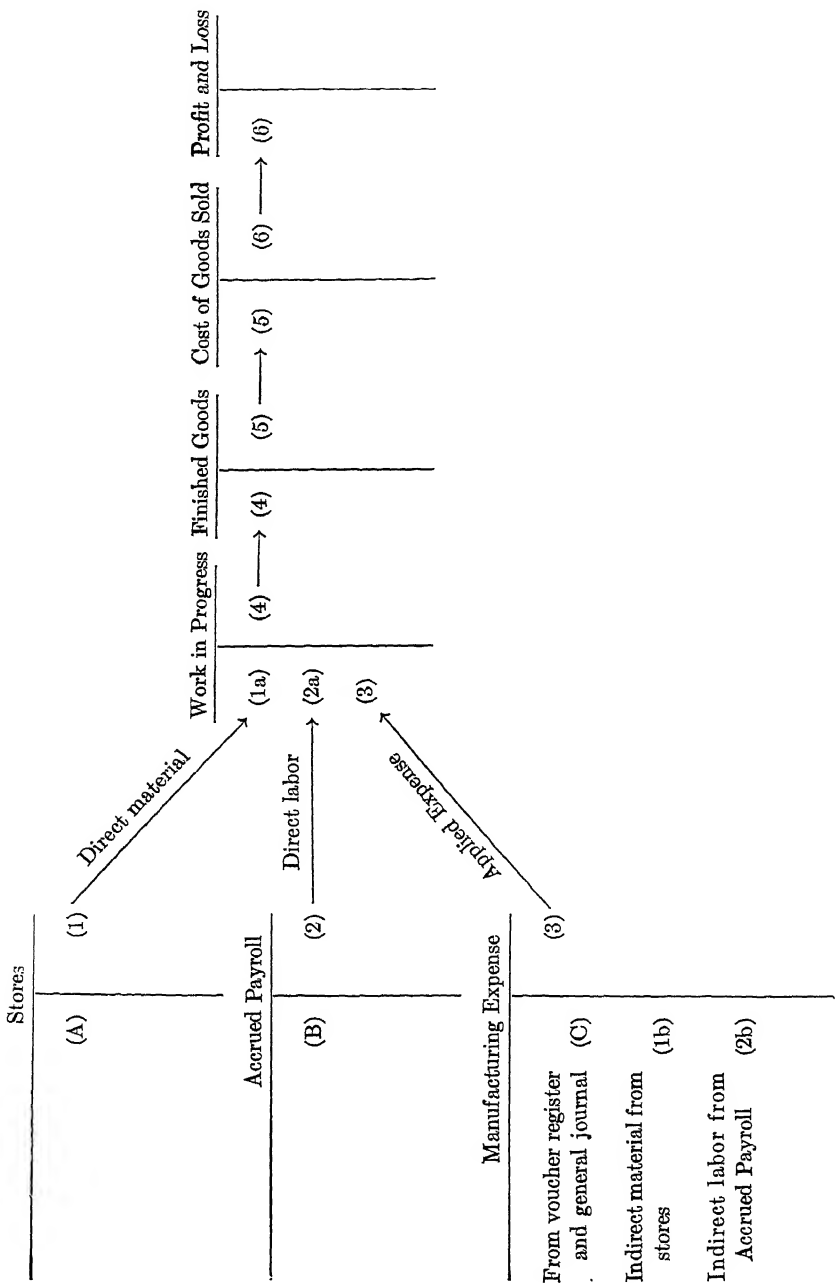
(Entries are made in the Out section by the finished goods ledger clerk from duplicate sales invoices showing kind and quantity of products sold.)

(Balances are extended after each entry.)

(The finished goods ledger is comprised of cards like this, one for each kind of finished product. The sum of the amounts in the total column of the Balance section should agree with the balance of the Finished Goods account in the general ledger.)

Illustration of a Finished Product Account in the Finished Goods Ledger.

"T" Accounts Illustrating Flow of Costs.



(1) Total cost of stores requisitioned by factory. (1a) for direct material and (1b) for indirect material.
(2) Payroll summary of direct labor individual daily time tickets and of indirect labor time tickets. (2a) for direct labor and (2b) for indirect labor.
(3) Manufacturing expense applied to production orders on a predetermined rate base.
(4) Total cost of production orders completed.
(5) Total cost of finished goods sold.
(6) Cost of Goods Sold is closed to profit and loss account.
(A) Cost of stores purchased and received.
(B) When payroll is vouchered for payment the Accrued Payroll account is charged and the Vouchers Payable account is credited.
(C) Actual manufacturing expense from Voucher Register and General Journal. (Debit or credit balance in this account at end of year may be closed directly to the profit and loss account.)

NOTE:

Balance of Stores, Work in Process, and Finished Goods accounts are inventories.

Perpetual Inventory Methods. When direct material has been purchased at different prices, there is a question as to which price should be used to cost the stores requisitions. To illustrate, assume that purchases of material A have been made as follows:

Jan.	4—50 units at $1.00 per unit	$ 50.00
	14—50 units at $1.20 per unit	60.00
	24—50 units at $1.25 per unit	62.50
Totals	150 units	$172.50

Assume further that no issue of this material is made until Jan. 25, at which time 50 units are requisitioned by the factory. What unit price should be used to cost the stores requisition?

First-In, First-Out. This method is based on the assumption that the material issued is the oldest material on hand and this assumption follows the actual physical facts in many manufacturing processes. Using first-in, first-out, the stores requisition should be costed at $1.00 per unit, leaving an inventory of 50 units at $1.20 and 50 units at $1.25. Irrespective of additional purchases, the next 50 units issued would be costed at $1.20 and the next 50 at $1.25.

The method may be represented by a coal bin which has an opening at the top for the coal to enter and an opening at the bottom out

of which the coal may be shoveled into the furnace. The first coal put into the bin will be the first to be used.

Last-In, First-Out. In this method, it is assumed that the material is issued from the latest addition. While this assumption does not follow the actual physical facts in many cases, it does have advantages which may justify its use. Using last-in, first-out, the stores requisition should be costed at $1.25 per unit leaving an inventory of 50 units at $1.20 and 50 units at $1.00. Assuming no additional purchases, the next 50 units would be issued at $1.20 per unit and the last 50 at $1.00. But if, in the meantime, additional purchases are made, an issue would be made out of, and to the extent of, the latest additions before the purchases of January 14, and 4 would be affected. Last-in, first-out may be represented by a pile of logs. The first log for the fireplace will be taken, normally, from the top of the pile. The last log placed on the pile will be the first one used.

Moving Average. This method is based on the assumption that units cannot be identified with their actual unit cost and that it is impossible to determine whether or not the 50 units issued are those first or last acquired. Using a moving average, the stores requisition would be costed at $1.15 per unit$\left(\frac{\$172.50}{150 \text{ units}}\right)$, leaving an inventory of 100 units at $1.15. Assuming no further purchases, subsequent issues would be at $1.15 per unit. But if, in the meantime, another 100 units were purchased at $1.05 per unit, subsequent issues would be at $1.10:

100	@	$1.15 =	$115.00
100	@	$1.05 =	105.00
200	@	$1.10 =	$220.00

A moving average method may be represented by a tank into which oil, at varying prices, has been poured. The oil mixes in the tank so that the oil used is not that which was put in first or last but a mixture.

It should be realized that a choice of methods will affect the direct material cost and the value of the inventory. The choice of a method is important, but of greater significance is the necessity of consistently following that choice once it has been made.[1]

[1] There are many other methods, such as "progressive average," "normal base stock," "standard costs."

Closing Entries Where Cost System Is Employed. The closing entries are considerably simplified. The Cost of Goods Sold account is closed to profit and loss together with the Sales account, the General and Selling Expense accounts, and the Non-Operating Income, and Expense accounts. Under- or Over-Applied Burden is closed to the profit and loss account also. It is unnecessary to set up the new inventories or to close out old inventories.

Illustrative Problem. The Young Manufacturing Company began business on January 2, 1940. Transactions for January were as follows:

1. Purchases of raw material were vouchered as follows:

Receiving Report No.	Date	Vo. #	Material	Quantity	Unit Cost	Total
1	1/3	206	A	100	$2.00	$ 200.00
2	1/5	223	B	50	3.00	150.00
3	1/8	260	A	200	2.10	420.00
4	1/10	271	C	300	1.00	300.00
5	1/11	289	B	200	3.00	600.00
6	1/25	372	A	60	2.20	132.00
					Total	$1,802.00

(Assume that none of these vouchers was paid in January.)

2. Factory payrolls were vouchered and paid as follows:

	Jan. 5	12	19	26	Totals
Direct Labor	$160.00	$180.00	$170.00	$170.00	$680.00
Indirect Labor	30.00	30.00	30.00	30.00	120.00
Totals	$190.00	$210.00	$200.00	$200.00	$800.00

3. Manufacturing expenses were vouchered as follows:

Date	Vo. #	Nature of Expense	Amount
		Light and power	$ 23.20
		Heat	18.10
		Repairs	46.00
		Supplies	119.00
		Rent of factory warehouse	50.00
		Total	$256.30

(Assume that none of these vouchers was paid in January.)

4. Three production orders were issued as follows:

No.	For:
1	20 units of Product X
2	20 units of Product Y
3	40 units of Product Z

5. Store requisitions were issued as follows:

Date	Req. No.	For Prod. Order No.	Material	Units	Total
1/4	1	1	A	40	$ 80.00
1/11	2	1	C	80	80.00
1/12	3	2	B	100	300.00
1/12	4	3	A	70	141.00
1/12	5	1	A	50	105.00
1/14	6	3	C	50	50.00
1/20	7	2	B	80	240.00
1/25	8	2	C	40	40.00
				Total	$1,036.00

(Requisition #9 was for direct material used for factory supplies.)

1/26	9	Mfg. Exp.	C	10	$ 10.00

6. At January 31, wages had accrued on the factory payroll as follows:

	Accrued at Jan. 31 for Jan. 28, 29, 30, 31.
Direct	$100.00
Indirect	20.00
Total	$120.00

7. A summary of the individual daily direct labor time tickets showed the following:

Prod. Order No.	Amount of Direct Labor
1	$405.00
2	218.00
3	157.00
Total	$780.00

Solution to Illustrative Problem (a).

STORES LEDGER (FIRST-IN, FIRST-OUT)

Material A

Date	In				Out				Balance		
	Receiving Report No.	Quantity	Unit Price	Total	Stores Req. No.	Quantity	Unit Cost	Total	Quantity	Unit Cost	Total
Jan. 3	1	100	2.00	200.00					100	2.00	200.00
4					1	40	2.00	80.00	60	2.00	120.00
8	3	200	2.10	420.00					{60 200	2.00 2.10	120.00 420.00}
12					4	{60 10	2.00 2.10}	141.00	190	2.10	399.00
12					5	50	2.10	105.00	140	2.10	294.00
25		60	2.20	132.00					{140 60	2.10 2.20	294.00 132.00}

Material B

Date	In				Out				Balance		
	Receiving Report No.	Quantity	Unit Price	Total	Stores Req. No.	Quantity	Unit Cost	Total	Quantity	Unit Cost	Total
Jan. 5	2	50	3.00	150.00					50	3.00	150.00
11	5	200	3.00	600.00					250	3.00	750.00
12					3	100	3.00	300.00	150	3.00	450.00
20					7	80	3.00	240.00	70	3.00	210.00

Material C

Date	In				Out				Balance		
	Receiving Report No.	Quantity	Unit Price	Total	Stores Req. No.	Quantity	Unit Cost	Total	Quantity	Unit Cost	Total
Jan. 10	4	300	1.00	300.00					300	1.00	300.00
11					2	80	1.00	80.00	220	1.00	220.00
14					6	50	1.00	50.00	170	1.00	170.00
25					8	40	1.00	40.00	130	1.00	130.00
26					9	10	1.00	10.00	120	1.00	120.00

8. Manufacturing expense is applied at rate of 80% of direct labor cost.
9. Accruals of factory expenses at Jan. 31, were as follows:

Depreciation on factory assets	$160.00
Taxes on factory assets	20.00
Total	$180.00

10. Expired insurance premiums on factory assets at Jan. 31—$36.00.
11. Production order #3 was in progress at Jan. 31.
    Production order # 2 was finished and on hand at Jan. 31.
    Production order #1 was finished and one-half of the order was sold for $700.00.

REQUIRED:

a. Material A, B, and C accounts in the stores ledger.
b. Journal entries to summarize the transactions described.
c. "T" accounts at January 31 showing general ledger accounts for Stores, Work in Progress, Finished Goods, Cost of Sales, Manufacturing Expense and Sales.
d. Production order cost sheets #1, #2, and #3.
e. Products X and Y accounts in the Finished Goods ledger.

Balances 1/31	
Material A	$426.00
Material B	210.00
Material C	120.00
Total	$756.00

Solution to Illustrative Problem (b).

(1) (Recorded in Voucher Register)

Stores	1,802.00	
Vouchers Payable		1,802.00
To record purchase of raw material.		

(2a) (Recorded in General Journal)

Work in Progress	680.00	
Manufacturing Expense	120.00	
Accrued Payrolls		800.00
To record payrolls.		

(2b) (Recorded in Voucher Register)

Accrued Payrolls	800.00	
Vouchers Payable		800.00
To voucher the payroll.		

(2c) (Recorded in Check Register)

Vouchers Payable	800.00	
Cash		800.00
To record payment of payrolls for month.		

(3) (Recorded in Voucher Register)

Manufacturing Expense	256.30	
Vouchers Payable		256.30
To record vouchering of various manufacturing expenses.		

(4)

(*No entries*)

(5) (Recorded in General Journal)

Work in Progress	1,036.00	
Manufacturing Expenses	10.00	
Stores		1,046.00
To record store requisitions issued.		

(6) (Recorded in General Journal)

Work in Progress	100.00	
Manufacturing Expenses	20.00	
Accrued Payrolls		120.00
To record accrued payroll at Jan. 31.		

(7)

(*No entry*)

(8) (Recorded in General Journal)

Work in Progress	624.00	
Manufacturing Expenses		624.00
To record applied manufacturing expenses of 80% of direct labor cost of $780.00.		

(9) (Recorded in General Journal)

Manufacturing Expenses	180.00	
Reserve for Depreciation—Factory Assets		160.00
Accrued Taxes		20.00
To accrue factory expenses.		

(10) (Recorded in General Journal)

Manufacturing Expenses	36.00	
Prepaid Insurance		36.00
To record expired premiums.		

(11) (Recorded in General Journal)

Finished Goods	1,966.40	
Work in Progress		1,966.40
Cost of Production Order #1 and 2 which were finished.		

(12A) (Recorded in General Journal)

Cost of Sales	497.00	
Finished Goods		497.00
Cost of one-half of Production Order #1—sold.		

(12B) (Recorded in Sales Journal)

Accounts Receivable	700.00	
Sales		700.00
To record a sale of 10 units of X (Production Order #1).		

Solution to Illustrative Problem (c).

"T" ACCOUNTS

Stores

(1)	1,802.00	1,046.00	(5)

(Balance of $756.00 agrees with stores ledger.)

Work in Progress

(2a)	680.00	1,966.40	(11)
(5)	1,036.00		
(6)	100.00		
(8)	624.00		

(Balance of $473.60 agrees with cost to date on Production Order #3 which is in progress.)

Finished Goods

(11)	1,966.40	497.00	(12)

(Balance of $1,469.40 agrees with finished goods ledger.)

Manufacturing Expense

(2a)	120.00	624.00	(8)
(3)	256.30		
(5)	10.00		
(6)	20.00		
(9)	180.00		
(10)	36.00		

(Credit balance of $1.70 may be closed to profit and loss. Represents slight over-application.)

Cost of Sales

(12A)	497.00		

Sales

		700.00	(12B)

Solution to Illustrative Problem (d).

PRODUCTION ORDERS

Production Order #1 for 20 units of X (finished and 10 units sold).

Direct Material Cost

Stores Req. #1	$ 80.00	
2	80.00	
5	105.00	$265.00
Direct Labor Cost		405.00
Applied Manufacturing Expense—80% of $405.00		324.00
Total Cost		$994.00

$$\frac{\$994.00}{20} = \$49.70 = \text{cost per unit of X.}$$

Production Order #2 for 20 units of Y (finished and on hand).

Direct Material Cost

Stores Req. #3	$300.00	
7	240.00	
8	40.00	$580.00
Direct Labor Cost		218.00
Applied Manufacturing Expense—80% of $218.00 ..		174.40
Total Cost		$972.40

$\frac{\$972.40}{20} = \$48.62 =$ cost per unit of Y.

Production order #3 for 40 units of Z (in progress).

Direct Material Cost

Stores Req. #4	$141.00	
6	50.00	$191.00
Direct Labor Cost		157.00
Applied Manufacturing Expense—80% of $157.00 ...		125.60
Cost to date		$473.60

Solution to Illustrative Problem (e) (see page 261).

QUESTIONS

1. The owner of a manufacturing concern makes this statement: "We have an excellent cost accounting system and when the factory has completed a product we know its exact cost." Comment on his statement.

2. The general ledger of a manufacturing concern shows the following account debit balances at the end of 1940:

Stores	$12,510.20
Work in Progress............	3,420.00
Finished Goods.............	15,110.00
Cost of Sales................	37,481.00

Where could you go to obtain a check on these figures in each case?

3. At January 1, 1940, there were 100 units of material A on hand at a unit cost of $2.00.

Jan. 6—Purchased 50 units at $2.50 per unit.
Jan. 10—Issued 50 units.
Jan. 20—Purchased 50 units at $3.00 per unit.
Jan. 26—Issued 50 units.

REQUIRED:

Cost of material issued and inventory value at end of January under each of the following methods:

1. First-in, first-out.
2. Last-in, first-out.
3. Moving average.

4. What disposition is made of each copy of the receiving report if it is prepared in triplicate?

FINISHED GOODS LEDGER
Product X

Date	In				Out				Balance		
	Prod. Order No.	Quantity	Unit Cost	Total	Sales Inv. No.	Quantity	Unit Cost	Total	Quantity	Unit Cost	Total
Jan.	1	20	49.70	994.00					20	49.70	994.00
					1	10	49.70	497.00	10	49.70	497.00

Product Y

Date	In				Out				Balance		
	Prod. Order No.	Quantity	Unit Cost	Total	Sales Inv. No.	Quantity	Unit Cost	Total	Quantity	Unit Cost	Total
Jan.	2	20	48.62	972.40					20	48.62	972.40

5. What are the sources of information which are used by the stores ledger clerk in making debits and credits in his stores ledger?

6. What are the sources of information which the production order cost clerk uses to enter the direct material and labor costs in his production order cost sheets?

7. What disposition is made of each copy of the stores requisition if it is made up in triplicate by the production manager?

8. A perpetual inventory record shows:

	Number	*Unit Cost*
IN:		
Jan. 1	200	$25.00
Feb. 5	150	27.00
Feb. 18	200	25.00
Mar. 5	150	28.00
OUT:		
Jan. 12	125	
Jan. 30	50	
Feb. 16	150	
Feb. 28	100	
Mar. 3	75	
Mar. 19	100	

REQUIRED:

Cost of material used from January 12 to March 19, inclusive, and the cost of the inventory after the issue of March 19, using each of the following:

a. First-in, first-out.
b. Last-in, first out.
c. Moving average.

9. What are the sources of information used by the finished goods ledger clerk in making debits and credits in his finished goods ledger?

10. State the nature and source of debits which are posted to the Manufacturing Expense account.

PROBLEMS

CHAPTER I

I-1. Determine the unknown in each of the following:

	Net Worth		Additional Investment	With-drawals	Sales	Cost of Sales	Expenses	Profit Loss *
	Start	End						
a.	$10,000	?	$3,000	$1,000	$ 3,000	$ 2,000	$ 500	?
b.	$16,000	$20,000	None	$1,000	$10,000	?	$ 1,000	?
c.	?	$18,000	$6,000	None	?	$15,000	$ 2,000	$4,000*
d.	$20,000	$24,000	$1,000	$2,000	$20,000	$12,000	?	?
e.	$16,000	$16,000	$2,000	?	$24,000	$16,000	?	$5,000

I-2. John Reed began business with an investment of $40,000.00 cash. His business earned a profit of $5,000.00 the first year, but at the end of that year $70,000.00 was owing to various creditors. Assuming that Reed make no additional investments or withdrawals, what should the assets amount to at the end of the year? Using only the facts given here, can you determine the amount of cash included in the assets at the end of the year?

I-3. The Acme Sugar Company prepared equation 1 on January 1, 19.., as follows:

Assets (Cash, $20,000.00) — Liabilities (Adams, $2,000.00) = Net Worth ($18,000.00)

The following transactions occurred in January:

1. Purchased four carloads of sugar for cash at $1,000.00 per car.
2. Sold for cash, two carloads of sugar at $1,200.00 per car.
3. Paid $1,000.00 cash to Adams.
4. The owner of the Acme Sugar Company withdrew $400.00 in cash.
5. Purchased one carload of sugar on account from Adams for $900.00.
6. Paid $200.00 cash for expenses.

REQUIRED:

a. Equation 1 after each transaction.
b. Equation 2 for the month.
c. Equation 3 for the month.

I-4. Transactions of the Martin Dry Goods Company in January, 19.., were as follows:

January 2. Martin invested $4,000.00 cash to start a small retail dry goods business.
12. The enterprise purchased a truck for $1,200.00 from the X Auto Company and promised to pay for it later.
13. Purchased merchandise from Jackson on account—$1,120.00.
14. Withdrew $50.00 cash for personal use.

15. Sold merchandise, which cost $800.00, for $1,000.00 cash.
16. Paid expenses of $90.00.
17. Sold merchandise, which cost $320.00, for $400.00. The customer promised to pay later.
22. Collected $160.00 on account. (Sale of January 17.)
27. Paid X Auto Company $1,200.00 for truck purchased on January 12.
31. Martin invested another $1,000.00 cash in preparation for additional and extensive merchandise purchases.

REQUIRED:

a. Equation 1 on January 2 and on January 31. The student may prepare interim equations as illustrated in the text or may use any other method he might devise to arrive at the Jan. 31 equations.

b. Equation 2 for January.

c. Equation 3 for January.

d What portion of the total assets at January 31 is in the form of cash?

I-5. Prepare Equation 1 after each of the following transactions:

1. Mr Powel began business by investing $5,000.00 cash.
2. Paid rent of store for month, $50.00.
3. Purchased merchandise from Black on account for $800.00.
4. Sold merchandise costing $300.00 to Carey for $360.00. Carey promised to pay later.
5. Purchased a delivery truck, at a cost of $700.00, from the Coleman Company. Mr. Powel paid $100.00 cash and promised to pay the balance later.
6. Borrowed $400.00 from the First National Bank on a written promise to pay later.
7. Mr. Powel made an additional investment of $1,000.00 cash.
8. Sold merchandise costing $200.00 for $280.00 cash.
9. Paid Black $800.00 cash for purchase described in transaction 3.
10. Received $360.00 cash from Carey for merchandise sold to him in transaction 4.
11. Paid salary of sales clerk, $100.00.
12. Mr. Powel withdrew $300.00 cash.

CHAPTER II

(In solving an accounting problem the student must remember that he is not seeking merely an answer. He is attempting to present some important facts in the most precise, the clearest, and the most pleasing way.) [1]

II-1. *a.* The information listed below was obtained from the records of the Carlson Company at December 31, 1940. Prepare a balance sheet in the account form.

Cash	$2,183.26
Notes Receivable	6,000.00
Accounts Receivable	12,481.19
Notes Payable (bank)	5,000.00
Accounts Payable	4,281.20
Buildings (cost)	30,000.00
Land (cost)	6,000.00
Reserve for Depreciation, Buildings	3,000.00
Merchandise Inventory at December 31, 1940	7,820.57
Mortgage Payable (due 1946)	10,000.00

b. What is the working capital? The approximate working capital ratio?

[1] Streightoff, "Elementary Accounting," page 10. Harper and Brothers (1928).

c. Is it possible to determine how the business is progressing from this information alone?

II-2. Prepare a balance sheet in report form from the information listed below as taken from the records of the Wendell Smith Book Company on June 30, 1940.

Cash on Hand	$ 286.10
Cash in Bank	3,420.60
Due from Customers	15,189.72
Due to Creditors	8,918.38
Cost of Office Equipment	6,400.00
Merchandise Inventory	20,992.89
Note Payable to Bank, August 1, 1940	3,000.00
Delivery Truck at Cost	9,200.00

Note: It is estimated that the office equipment has a useful life of 10 years from January 1, 1938, the date on which it was acquired, and that its trade-in value at the end of 10 years will be 10% of original cost.

The correct reserve for depreciation against the delivery trucks may be taken as $4,800.00 at June 30, 1940.

II-3. Prepare a balance sheet from the following information as taken from the records of the Ladler Company on January 1, 19... (The net worth figure is negative and should be shown on the balance sheet in red to indicate a deduction when determining the total of liabilities and net worth. The total assets are insufficient to satisfy the claim or equity of the liabilities and, consequently, the enterprise is insolvent.)

Cash	$10,000.00
Notes Receivable (trade)	2,000.00
Merchandise Inventory	10,000.00
Accounts Receivable (trade)	4,000.00
Notes Payable (other)	20,000.00
Accounts Payable (trade)	12,000.00
Mortgage Payable	18,000.00
Building and Equipment	20,000.00
Reserve for Depreciation of Building and Equipment	3,000.00
Land	4,000.00

✓ **II-4.** You are called upon to prepare a balance sheet for the Eversole Company at December 31, 1940. On that date you counted the cash on hand and found that it amounted to $38.20. The First Capital Bank reports that the Eversole Company had $3,620.86 to its credit at December 31, 1940, and Mr. Eversole's checkbook also shows this balance. The bank reports, however, that they hold a $3,500.00 note signed by the Eversole Company which is dated December 30, 1940.

A physical inventory of merchandise was made at the end of 1940 and the extensions, at cost, total $14,619.10.

The company owns a delivery truck which cost $3,000.00 but which is one year old. (Trucks have an average life of about four years.) The Eversole Company also owns office equipment which cost $5,000.00 three years ago. (Office equipment has an average life of ten years.) Office rent of $150.00 for December had not been paid at December 31, 1940.

A careful record of amounts due from customers is available and the total of receivables at December 31, 1940, was $13,560.10. The company owes $3,526.00 to various creditors on account in addition to the rent.

Prepare a balance sheet from this information.

✓ **II-5.** *a*. Prepare a comparative balance sheet for the Downtown Company from the information listed below. Omit a percentage analysis, merely showing increases and decreases by dollars.

	December 31, 1939	December 31, 1940
Cash	$ 4,000.00	$ 2,000.00
Accounts Receivable	10,000.00	12,000.00
Notes Receivable (trade)	1,000.00	7,000.00
Merchandise Inventory	20,000.00	15,000.00
Buildings (book value)	60,000.00	70,000.00
Accounts Payable	12,000.00	6,000.00
Notes Payable (banks)	2,000.00	10,000.00
Mortgage Payable	8,000.00	. . . .
C. H. Downtown, Net Worth	73,000.00	90,000.00

b. Prepare a statement analyzing the change in working capital during the year. Profit for the year 1940 was $12,000.00. On June 3, 1940, Mr. Downtown made an additional investment of $5,000.00.

c. Comment on unfavorable or favorable changes in financial conditions.

II-6. One transaction has been completed between each of the following balance sheets. (The balance sheet headings and classifications of assets and liabilities have been omitted to conserve space.) Explain the nature of each transaction:[1]

a

Cash	$ 5,000.00	Net Worth	$ 5,000.00

b

Cash	$ 3,000.00	Net Worth	$ 5,000.00
Furniture and Fixtures	2,000.00		
	$ 5,000.00		$ 5,000.00

c

Cash	$ 3,000.00	Henry Madison	$ 4,000.00
Merchandise Stock	4,000.00	Net Worth	5,000.00
Furniture and Fixtures	2,000.00		
	$ 9,000.00		$ 9,000.00

d

Cash	$ 4,000.00	Henry Madison	$ 4,000.00
Merchandise Stock	4,000.00	Net Worth	6,000.00
Furniture and Fixtures	2,000.00		
	$10,000.00		$10,000.00

e

Cash	$ 3,500.00	Henry Madison	$ 4,000.00
Merchandise Stock	4,000.00	Net Worth	6,000.00
Furniture and Fixtures	2,000.00		
Delivery Equipment	500.00		
	$10,000.00		$10,000.00

[1] McKinsey, "Accounting Principles." South-Western Publishing Company.

f

Cash	$ 1,500.00	Henry Madison	$ 2,000.00
Merchandise Stock	4,000.00	Net Worth	6,000.00
Furniture and Fixtures	2,000.00		
Delivery equipment	500.00		
	$ 8,000.00		$ 8,000.00

g

Cash	$ 3,000.00	Henry Madison	$ 2,000 00
Merchandise Stock	3,000.00	Net Worth	6,500.00
Furniture and Fixtures	2,000.00		
Delivery equipment	500.00		
	$ 8,500.00		$ 8,500.00

II-7. A building was purchased on January 1, 1920, for $40,000.00. At that time it was estimated that its life would be 30 years and that the scrap value at the end of that life would be $4,000.00. What is the book value of the building at December 31, 1933?

If the market value on December 31, 1933, was $50,000.00, owing to inflated real estate prices, how could the apparent understatement of the value of the building in the balance sheet be made evident?

CHAPTER III

III-1. The information listed below is a summary of operations of the B. Austin Company for the year 1940.

Sales	$26,210.18
Inventory, January 1, 1940	4,320.00
Purchases	13,344.70
Freight-In	424.90
Inventory, December 31, 1940	3,149.80
Operating Expenses	7,426.38
Interest Income	156.00

Prepare a statement of profit and loss. What is the percentage of gross profit? What is the turnover of merchandise for the year?

III-2. Prepare a statement of profit and loss for A. C. Blue from the information listen below, which covers the six-month period ended June 30, 1940.

Inventory, January 1, 1940	$13,716.20
Sales Returns and Allowances	105.16
Purchases	11,261.20
Sales	19,436.00
Freight-In	318.92
Inventory, June 30, 1940	12,283.80
Purchase Returns and Allowances	718.17
Sales Discount	304.08
Telephone and Telegraph—Sales Dept.	72.10
Interest Income	32.08
Administrative Salaries	1,800.00
Salesmen's Salaries	2,100.00
Advertising Expense	300.00

Rent Expense—Administrative	$ 150.00
Rent Expense—Sales Dept.	200.00
Shipping Supplies Expense	90.00
Freight-Out	318.10
Traveling Expense of Salesmen	522.06
Purchase Discount	390.19
Interest Expense	82.00
Sundry Administrative Expenses	318.45
Sundry Selling Expenses	163.75

III-3. The following information was obtained from the accounting records of the Voight Company on December 31, 1940:

Sales	$60,210.08
Purchases	51,322.00
Inventory, December 1, 1940	46,210.26
Operating Expenses	12,490.32
Freight-In	922.18
Purchase Returns and Allowances	621.00
Fire loss (not covered by insurance)	318.00

The inventory of merchandise at December 31, 1940, was $44,910.27. Prepare a statement of profit and loss for the month.

III-4. The following information was obtained from the accounting records of the Cory Company on December 31, 1940:

Cash on Hand and in Banks	$ 4,000.00
Notes Receivable (trade)	3,000.00
Accounts Receivable (trade)	30,000.00
Merchandise Inventory, January 1, 1940	40,000.00
Merchandise Inventory, December 31, 1940	45,000.00
Buildings	120,000.00
Reserve for Depreciation of Buildings	18,000.00
Equipment	40,000.00
Reserve for Depreciation of Equipment	8,000.00
Notes Payable (other)	2,000.00
Accounts Payable (trade)	20,000.00
J. M. Cory, Capital, January 1, 1940	190,400.00
Sales	70,000.00
Purchases	30,000.00
Sales Returns and Allowances	1,000.00
Purchase Returns and Allowances	2,000.00
Freight-In on Purchases	3,000.00
Selling Salaries	9,000.00
Advertising Expense	3,000.00
Miscellaneous Selling Expense	1,000.00
Delivery Expense	1,500.00
Administrative Salaries	8,000.00
Office Supplies Expense	800.00
Miscellaneous Administrative Expense	1,200.00
Executive Salaries {¾ Administrative, ¼ Selling}	10,000.00
Depreciation on Buildings {¼ Selling, ¾ Administrative}	2,400.00
Depreciation on Equipment {¼ Selling, ¾ Administrative}	2,000.00
Interest Expense	600.00
Sales Discounts	1,800.00

Interest Income	$ 100.00
Purchase Discounts	2,800.00
Loss on Sale of Old Equipment	400.00
Mr. Cory, Withdrawals	600.00

PREPARE:

a. Balance sheet, December 31, 1940.
b. Profit and loss statement, for year ended December 31, 1940, with a percentage analysis.
c. Equation 3 for the year ended December 31, 1940.

III-5. Determine the following, using statements prepared in problem III-4:

a. Gross profit percentage for 1940.
b. Percentage return on average investment by Mr. Cory for the year 1940. (The average investment may be assumed to be the average of net worth figures at the beginning and end of the year.)
c. Percentage of accounts receivable (trade) to net sales. (Assume that all sales were on account.)
d. Turnover of merchandise inventory.
e. Working capital at December 31, 1940.
f. Working capital ratio at December 31, 1940.

III-6. *a.* Prepare a condensed comparative profit and loss statement with percentage analysis from the information below:

UNION MADE COMPANY

	1939	*1940*
Net Sales	$36,000.00	$40,000.00
Cost of Sales	25,200.00	24,000.00
Operating Expenses	9,000.00	12,000.00
Non-Operating Net Income	1,800.00	....

b. Did the operating profit in each dollar of sales increase or decrease in 1940 as compared to 1939 and how much?

III-7. Mr. Tanner is contemplating the purchase of the Warren Company and he brings to you the financial data listed below. He requests that you prepare appropriate statements for his examination, and also that you comment on the condition of the business and express an opinion as to its soundness.

As a part of your report, prepare the following exhibits:

Exhibit A—Comparative Balance Sheet, December 31, 1939, and 1940. (Omit percentage analysis.)

Exhibit B—Condensed Comparative Profit and Loss Statement for 1939 and 1940. (Include percentage analysis.)

Schedule B-1—Computation of Cost of Goods Sold for 1939 and 1940.

Exhibit C—Equation 3 for 1939 and 1940.

Exhibit D—Analysis of Changes in Working Capital, January 1, 1939, to December 31, 1940.

In writing your report adopt the following divisions of comments:

(1) Comments on changes in financial condition.
(2) Comments on operations.
(3) Comments of a sundry nature.

The figures given to you by Mr. Tanner are to be accepted as fairly presenting the financial condition at December 31, 1939, and 1940, and the results of operations for the years 1939 and 1940.

ASSETS, LIABILITIES, AND NET WORTH

	December 31 1939	1940
Cash	$ 6,000.00	$ 1,000.00
Accounts Receivable	20,000.00	38,000.00
Notes Receivable (trade)	6,000.00	......
Merchandise Inventory	30,000.00	40,000.00
Fixed Assets less Reserve for Dep.	49,200.00	59,200.00
Accounts Payable	25,000.00	42,000.00
Notes Payable (banks)	6,000.00	8,000.00
Mortgage Payable	20,000.00	10,000.00
Warren, Net Worth	60,200.00	78,200.00

Mr. Warren began business December 31, 1938, by investing $31,200.00 cash and $26,000.00 merchandise. He made no additional investments or withdrawals in 1939. In 1940 Mr. Warren invested $19,000.00 cash to improve the working capital position.

RESULTS OF OPERATIONS

	1939	1940
Net Sales	$170,000.00	$150,000.00
Net Purchases	122,000.00	116,000.00
Operating Expenses	49,000.00	45,000.00

III-8. Almost the entire stock of merchandise in the store of Stern Company was destroyed by a fire on the night of June 6, 1941. You are called in to determine the cost of the merchandise which was in the store at that time, and your figures will be used as a basis for the fire insurance adjustment.

The records of Stern Company were intact as they were kept in a fireproof safe. From these records you determine the following:

a. Inventory of merchandise December 31, 1940 (at cost)—$18,200.00.

b. Cost of merchandise purchased January 1, 1941, to June 6, 1941, inclusive—$47,500.00.

c. Total sales for the period January 1, 1941 to June 6, 1941, inclusive—$68,000.00.

d. The statement of profit and loss for 1940 shows a gross profit of 24%. Upon inquiry it appears that this percentage is reasonably applicable to 1941 operations.

REQUIRED:

Your estimate of the cost of the merchandise on hand the night of June 6, 1941, just prior to the fire.

CHAPTER IV

IV-1. The information which is listed below was taken from the records of the Snyder Company on December 31, 1940. Prepare the following:

a. Balance Sheet, December 31, 1940.

b. Profit and Loss Statement, Year Ended December 31, 1940.

c. Statement of Change in Net Worth, Year Ended December 31, 1940.

ASSETS AND LIABILITIES AT DECEMBER 31, 1940

Cash	$ 2,100.80
Accounts Receivable	12,310.20
Merchandise Inventory	20,195.37
Building and Equipment (cost)	60,000.00

Reserve for Depreciation, Bldg., and Equip.	$10,000.00
Accounts Payable	15,981.06
Notes Payable	5,000.00
Mortgage Payable (due in 1950)	20,000.00

INCOMES AND EXPENSES FOR 1940

Sales	$50,620.00
Sales Returns and Allowances	2,118.20
Purchases	40,006.39
Purchase Returns and Allowances	2,920.00
Freight-In	760.10
Selling Expenses	5,825.42
Administrative Expenses	5,216.13
Sales Discount	891.90
Purchase Discount	1,663.39
Interest Earned	200.00
Interest Expense	398.17

MISCELLANEOUS

Net Worth on January 1, 1940, was $43,168.86. Mr. Snyder made an additional investment of $1,500.00 cash on April 1, 1940, but withdrew $3,500.00 cash on August 10, 1940. The inventory of merchandise on January 1, 1940, was $17,926.00. Depreciation of the building for the year 1940 is included in administrative expenses in the amount of $2,000.00.

IV-2. The two partners of the firm of McLane and Hall share profits and losses equally. Mr. McLane has the larger investment, but Mr. Hall devotes more time to the business.

You are asked to prepare the usual financial statements for the year 1940 based on the data listed below. Mr. Hall has expressed a preference for the report form of balance sheet.

ASSETS AND LIABILITIES AT DECEMBER 31, 1940

Cash	$ 2,973.40
Accounts Receivable	41,102.10
Notes Receivable	1,500.00
Merchandise Inventory	29,820.00
Building (cost)	100,000.00
Furniture and Fixtures (cost)	20,000.00
Reserve for Depreciation of Building	30,000.00
Reserve for Depreciation of F. and F.	12,000.00
Accounts Payable	36,189.28
Notes Payable	3,800.00

INCOMES AND EXPENSES FOR 1940

Sales	$101,643.00
Sales Returns and Allowances	6,721.10
Purchases	64,310.08
Purchase Returns and Allowances	1,964.19
Selling Expense	15,918.92
Administrative Expense	9,182.14

MISCELLANEOUS

(1) Net Worth January 1, 1940, was $109,904.17, of which McLane's equity was $76,301.92 and Hall's equity was $33,602.25.

(2) Mr. McLane withdrew $4,000.00 cash in 1940 and made no additional investments.

(3) Mr. Hall made an additional investment of $6,000.00 in 1940 and made no withdrawals.

(4) Merchandise Inventory on January 1, 1940, was $35,792.90.

(5) Depreciation for 1940 has been recognized and is included in the expenses and, of course, in the reserves.

IV-3. You are given the information listed below and asked to prepare the following:

Exhibit A—Balance Sheet, December 31, 1940.
Exhibit B—Profit and Loss Statement, Year Ended December 31, 1940.
Exhibit C—Statement of Surplus, Year Ended December 31, 1940.

ASSETS AND LIABILITIES OF THE CONDOR CORPORATION ON DECEMBER 31, 1940

Cash	$ 19,220.87
Accounts Receivable	141,620.00
Merchandise Inventory	187,310.97
Buildings and Fixtures (cost)	300,000.00
Reserve for Depreciation, Bldg. and Fixt.	40,000.00
Accounts Payable	108,998.14
Dividend Payable	8,000.00

EXPENSES AND INCOMES OF THE CORPORATION FOR 1940

Net Sales	$306,222.36
Net Purchases	183,655.49
Operating Expenses	109,111.26

MISCELLANEOUS

(1) On December 31, 1940, the corporation has 4,000 shares of common stock, par $100.00 each, issued and outstanding. The total authorization is for 5,000 shares. Only 3,000 shares were issued and outstanding on January 1, 1940, these shares having been issued at par when the corporation was organized in 1937. On June 30, 1940, 1,000 shares of stock were issued for cash, at $123.00 per share, to provide additional capital for expansion of operations.

(2) On January 1, 1940, the corporation had an earned surplus of $47,027.32 and no paid-in or other surplus.

(3) On December 1, 1940, the board of directors declared a dividend of 2%, of record December 31, 1940, payable January 10, 1941. This decreased earned surplus and created the liability of dividend payable.

(4) The merchandise inventory on January 1, 1940, was $171,640.20.

IV-4. Prepare a balance sheet for the Conwell Corporation from the data below:

ASSETS AND LIABILITIES AT DECEMBER 31, 1940

Cash	$ 19,762.18
Accounts Receivable	208,199.89
Merchandise	302,609.50
Building	391,500.00
Fixtures	42,670.00
Land	20,000.00
Reserve for Depreciation, Building	102,600.00
Reserve for Depreciation, Fixtures	24,300.00
Accounts Payable	87,600.98
Notes Payable	42,000.00
Preferred Dividend Payable	7,000.00

(1) The corporation had two classes of stock as follows:

7% Cumulative Preferred, par $100.00 each. Authorized: 5,000 shares; Issued: 1,000 shares.

Common Stock, par $25.00 each. Authorized: 40,000 shares; Issued: 22,000 shares.

(2) $10,000.00 of the total surplus at December 31, 1940, has been paid in by stockholders as premium on preferred stock.

CHAPTER V

V-1. Journalize the transactions described below, post to ledger accounts, and prepare a trial balance.

1940

March 1 H. M. Stone began business by investing $10,000.00 cash. He plans to open a wholesale hardware business.

8 Purchased $7,620.00 merchandise from the Killard Company on account.

9 Sent Penn Realty Company a check for the March rent of a storeroom, $170.00.

9 Purchased a cash register from the Ellwood Register Company for $310.00 cash.

18 Cash sales amount to $300.00 but $6.00 in discounts are allowed so that only $294.00 is collected in cash.

19 Sold to Casper and Company merchandise on account, $800.00. Terms: 2/10; n/30.

20 Return $150.00 merchandise to the Killard Company (see March 8) receiving credit for same.

21 Paid cash for postage, $5.00, and for office supplies, $8.00. (Debit to Sundry Expenses.)

22 Paid $3,500.00 to Killard Company on account. No discount is allowed.

23 Cash sales of $200.00. Discount of $4.00 allowed. Received $196.00 in cash.

25 Sold Bradley Company merchandise on account, $847.00. Terms: 2/10; n/60.

25 Collected in full, less discount, for sale to Casper and Company. (See March 19.)

25 Sold merchandise on account to Yoder and Kellog, $1,200.00. Terms: 2/10; n/30.

26 Purchased merchandise on account from Nall Supply Company, $5,540.00.

26 Yoder and Kellog send their note for $1,176.00 due in 90 days and bearing 6% interest. We allow the sales discount of 2% of $1,200.00 and accept the note as settlement on their purchase of the twenty-fifth.

27 Paid salaries for March, $475.00.

29 Gave Killard Company our note for $1,000.00 at 6% for 30 days.

30 Purchased 50 kegs of nails for cash at $4.00 per keg.

V-2. H. R. Lund and C. E. Wood enter into a partnership agreement to operate a men's clothing store. You are asked to journalize the transactions of the first month, post to ledger accounts, and prepare a trial balance at the end of the month.

1940

June 3 Lund and Wood each invest $8,000.00 cash.
3 Paid store rent for June, $150.00.
3 Purchased store fixtures for cash, $1,200.00.
4 Purchased a delivery car costing $1,280.00. Paid $500.00 cash and signed a note for the balance.
5 Purchased merchandise from Reuter and Son on account, $3,200.00. Terms: n/60.
6 Purchased merchandise for cash, $290.20.
7 Paid $90.00 for advertisements on store opening.
7 Paid sundry expenses in cash, $87.00.

(Preparations for the opening day went on from June 7 to 21. The store was opened on Saturday, June 22.)

22 Cash sales of $286.00.
Sales on account of $461.00.
24 Wood took out $50.00 cash for his personal use.
Cash sales, $195.00.
Sales on account, $64.00.
25 Paid $18.00 for delivery car license. Charge Delivery Expense.
Cash sales, $48.00.
Sales on account, $210.00.
26 Returned merchandise which cost $300.00 to Reuter and Son and received credit. (See purchase of June 5.)
Customer returned hat as unsatisfacory. No other hat could be found which pleased him so his money was refunded, $5.00.
Cash sales, none.
Sales on account, $450.00.
27 Customer paid his bill of $95.00 receiving a 5% cash discount.
Lund and Wood each invested an additional $500.00 cash.
No sales today.
28 Cash sales, none.
Sales on account, $160.00.
Paid salaries for month of June:

Driver of delivery truck..........	$ 60.00
Two clerks, each $70.00...........	140.00
Total	$200.00

Purchased merchandise from McCreery and Company, $680.00. Gave note signed by partnership of Lund and Wood due in 60 days, no interest.
Collected from customers on account:

Total credits given...............	$600.00
Less discounts of 5%...........	30.00
Net cash received................	$570.00

29 Cash sales, none.
Sales on account, $130.00.
Paid light, gas, and water bill for June—$39.18.
Paid telephone and telegraph bill for June—$19.80.

V-3. The transactions described below are those of the Dudley Corporation for the month of January 1941. Journalize, post, and prepare a trial balance at January 31, 1941.

1941

January 2 The charter of the Dudley Corporation, granted by the State of Pennsylvania, authorizes 1,000 shares of common stock, par $100.00 each, and provides that the corporation may conduct a wholesale grocery business. The 1,000 shares are immediately issued for cash at par.

7 Purchased a building and lot for $125,000.00, of which $25,000.00 is allocated to the lot. A cash payment of $75,000.00 was made, and the balance of $50,000.00 was covered by a mortgage on the property.

7 Purchased four $1,500.00 trucks. Paid 40% down and signed two notes for $1,800.00 each, due January 27, 1941, and September 1, 1941, respectively. Notes bear interest at 6%.

7 Purchased furniture and fixtures for the building, on account, from Marsh Clinard and Company, $8,226.00.

9 Borrowed $6,000.00 cash from First National Bank on 20-day note at 6%.

10 Purchased merchandise on account as follows:

American Produce Company	$ 8,210.20
H. J. Heinz Company	6,921.95
Best Foods Company	5,200.00
Union Supply Company	24,310.00
Total	$44,642.15

14 Rented a section of the building to another concern and received $135.00 for the remainder of January.

15 Paid for furniture and fixtures purchased on the seventh.

18 Paid American Produce Company $8,128.10 cash in full settlement of purchase of the tenth. Allowed $82.10 discount.

18 Paid H. J. Heinz Company $6,852.73 cash in full settlement of purchase of the tenth. Allowed $69.22 discount.

20 Sold merchandise on account to various retail grocers, $12,418.20.

21 Purchased merchandise for cash, $692.00.

22 Sold merchandise on account, $6,490.00.

23 Paid $50.00 for repairs to trucks.

23 Sold merchandise on account, $8,218.29.

24 Purchased shipping supplies for cash, $165.10. (Debit Shipping Expense.)

25 Collected $4,600.00 cash from customers on account. Allowed discounts of $75.00. Total credit to customers, $4,675.00.

25 Received a $1,000.00 note from one retailer who could not pay his account when it became due.

27 Paid $118.00 cash for repairs to building. (Debit Repair Expense.)

27 Paid note due today. (See the seventh.)

Face	$1,800.00
Interest	6.00
Total	$1,806.00

28 Sold merchandise:

for cash	$ 410.00
on account	3,860.00
Total	$4,270.00

1941

January 28 Collected $3,410.00 cash from customers on account and allowed discounts of $45.00.

29 Paid note due today. (See the ninth.)

Face of note	$6,000.00
Interest	20.00
Total	$6,020.00

29 Purchased merchandise on account, $5,020.00.

30 Paid monthly salaries in cash as follows:

Sales Salaries	$ 610.00
Administrative Salaries	760.00
Total	$1,370.00

30 Borrowed $15,000.00 from First National Bank on 30-day note.

30 Paid Best Foods Company $3,000.00 on account.

30 Paid Union Supply Company $10,310.00 on account and signed a 60-day note for the balance of $14,000.00. (See the tenth.)

30 Paid following expense bills in cash:

Light, water, and gas	$182.00
Advertising	320.00
Telephone and Telegraph	94.20
Gas and Oil	56.18
Sundry	123.00
Total	$775.38

V-4. The McCreedy Corporation had an earned surplus of $32,620.00 on December 1, 1940. On December 10, 1940, the board of directors declared the regular 7% dividend on the 500 shares of 7% cumulative non-participating preferred stock, par $100.00 each, and a 10% dividend on the 100 shares of common stock, par $100.00 each, as of record December 31, 1940, payable January 10, 1941.

REQUIRED:

a. Journal entries on December 10, 1940, and January 10, 1941.
b. Of what significance is the date of record?
c. Would the statement of surplus for 1940 reflect these entries? How?
d. Would the balance sheet at December 31, 1940, reflect these entries? How?

V-5. Journalize the following:

a. Negotiations are completed for the purchase of property from the Sentinel Company on the following basis:

PURCHASE PRICE:

Land	$ 31,000.00
Building	85,000.00
Machinery	43,000.00
Total	$159,000.00

PAYMENT:

Cash	$ 59,000.00
Five-year, 5% mortgage on land and building	75,000.00
Sixty-day 5% note	25,000.00
Total	$159,000.00

b. The Ronald Furnace Company on January 10, 1941, sold three furnaces to Loewing and Company, contractors, @ $265.00 each. The sales invoice was incorrectly extended at $895.00, and the sale was recorded on that basis. One week later, Loewing and Company pointed out the error and enclosed a check for the correct amount of $795.00.

REQUIRED:

Entry to record receipt of the $795.00 and to correct the error of $100.00 in recording the sale.

c. On July 8, 1940, we purchased merchandise on account from the Clay Corporation for $1,000.00. Terms were 2/10; n/30. On July 18, 1940, we sent them a check for $980.00, the amount of our purchase less 2% discount. On July 26, 1940, we returned one-half the merchandise as unsatisfactory.

REQUIRED:

Entry to record the return,

(1) Assuming that they returned our money immediately;
(2) Assuming that we asked them to credit our account against future purchases.

d. We purchased the assets and assumed the liabilities of the Hopeless Company on the following basis:

Merchandise	$ 3,000.00	
Accounts Receivable	6,000.00	
Building and Equipment	21,000.00	
Total		$30,000.00
Accounts Payable (assumed by us)		18,000.00
Cash paid by us to the Hopeless Co.		$12,000.00

REQUIRED:

Entry to record purchase of assets and assumption of liabilities.

e. The records of the Larry Company show that $860.00 is due to Strong and Company and also that $410.00 is receivable from Strong and Company. (The Larry Company both buys from and sells to Strong and Company.) It is suggested that the accounts be settled by having the Larry Company pay the difference.

REQUIRED:

Entry to settle the accounts, assuming that a 2% discount is allowed on both balances.

CHAPTER VI

VI-1. The partnership of Leader and Conwell has been operating a retail store since January 1, 1940. The trial balance, shown below, was prepared from their ledger accounts on Tuesday, December 31, 1940.

LEADER AND CONWELL

TRIAL BALANCE, YEAR ENDED DECEMBER 31, 1940

Cash	$ 2,160.08	
Accounts Receivable	15,670.00	
Notes Receivable	4,000.00	
Furniture and Fixtures (cost)	9,200.00	
Prepaid Insurance Premiums	762.00	
Accounts Payable		$ 7,095.19
Notes Payable		3,500.00
Leader, Capital		12,410.00
Conwell, Capital		9,168.89
Sales		93,400.00
Purchases	85,910.00	
Salary Expense	6,510.00	
Rent Expense	1,300.00	
Interest Expense	74.00	
Interest Earned		12.00
Totals	$125,586.08	$125,586.08

The adjustments which should be recognized are as follows:

a. Salary expense does not include salaries which have been earned by employees but not paid at December 31, 1940, $220.00.

b. Rent expense includes the January 1941 rent of $100.00 which was paid on December 30, 1940.

c. $25.00 in interest on notes receivable has been earned but not received at December 31. The item of Interest Earned in the trial balance does not include this $25.00.

d. Interest on notes payable of $18.00 has been accrued at December 31. The item of Interest Expense in the trial balance does not include this $18.00.

e. Insurance premiums of $312.00 had expired at the end of 1940.

f. Depreciation of furniture and fixtures for 1940 is estimated to be 10% of cost. (The furniture and fixtures were purchased early in January 1940.)

g. It is estimated that $800.00 of the accounts receivable is uncollectible.

REQUIRED:

(1) Adjusting entries, with adequate explanations, as they should appear in the journal of Leader and Conwell at December 31, 1940.
(2) Enter the adjustments opposite the proper trial balance items.
(3) Combine the trial balance items with the adjustments and obtain the adjusted trial balance.

VI-2.

HAROLD BOWEN, INCORPORATED *

TRIAL BALANCE, YEAR ENDED DECEMBER 31, 1940

Cash	$ 3,210.10	
Merchandise Inventory	8,740.00	
Accounts Receivable	13,690.95	
Buildings and Equipment (Acquired Jan. 1, 1940)	100,000.00	
Accounts Payable		$ 4,300.00
Notes Payable		3,000.00
5% Mortgage Bonds Payable Oct. 1, 1950		40,000.00
Capital Stock Authorized and Issued		50,000.00
Paid-in Surplus		8,656.97
Sales		58,222.18
Purchases	29,416.10	
Wages and Salaries	5,735.00	
Tax Expense	910.00	
Insurance Expense	420.00	
Advertising Expense	1,600.00	
Interest Expense	1,536.00	
Rental Income		1,800.00
Sundry Expenses	721.00	
Totals	$165,979.15	$165,979.15

* Organized December 15, 1939. Operations started January 2, 1940.

ADJUSTING DATA:

a. Depreciation on buildings and equipment to be recorded at annual rate of 5% of cost.

b. Estimated bad debts in sales are 1%.

c. Interest on 5% mortgage bonds is paid semiannually on October 1 and April 1. Interest has accrued from October 1 to December 31, 1940. Interest for three months at 5% on $40,000.00 is $500.00.

d. Wages and salaries accrued, $310.00.

e. One section of the building is rented to another firm at $100.00 a month. On December 20, 1940, this firm paid the rent for the first six months of 1941 in advance.

f. On December 4, 1940, Harold Bowen, Incorporated, purchased 10,000 advertising circulars at a cost of $400.00, which was debited to advertising expense. It was found that 7,000 of these circulars were still on hand at December 31, 1940, ready for distribution in 1941.

g. On January 3, 1940, the corporation paid $300.00 for a three-year fire insurance policy. The $300.00 was debited to insurance expense, and is included in the $420.00 debit balance of that account.

h. Social security taxes, property taxes, etc., accrued at December 31, 1940, amounted to $396.00.

i. On December 20, 1940, the board of directors declared a 10% dividend payable on January 5, 1941. The declaration was not recorded by the bookkeeper.

REQUIRED:

(1) Adjusting entries at December 31, 1940, as they should appear in the journal of Harold Bowen, Incorporated.
(2) Enter the adjustments opposite the trial balance items and prepare the adjusted trial balance.

CHAPTER VII

VII-1. *a.* Extend the adjusted trial balance items to the profit and loss or balance sheet columns and determine the net profit or loss.

b. Prepare a Balance Sheet, December 31, 1940, a Statement of Profit and Loss for the Year Ended December 31, 1940, and a Statement of Change in Net Worth for the Year Ended December 31, 1940.

JEROME DRUG COMPANY

ADJUSTED TRIAL BALANCE, DECEMBER 31, 1940

Cash	$ 5,000.00	
Accounts Receivable	20,000.00	
Reserve for Bad Debts		$ 400.00
Merchandise Inventory	30,000.00	
Notes Receivable	1,500.00	
Buildings and Equipment	60,000.00	
Reserve for Depreciation, Bldg. and Equip		10,000.00
Accounts Payable		12,000.00
Notes Payable		6,000.00
Jerome, Capital		87,200.00
Jerome, Drawings	2,600.00	
Sales		108,000.00
Purchases	72,000.00	
Freight-In	2,400.00	
Freight-Out	3,600.00	
Wage Expense	18,000.00	
Depreciation Expense	2,400.00	
Bad Debt Expense	1,200.00	
Interest Expense	130.00	
Interest Income		40.00
Advertising Expense	2,160.00	
Insurance and Tax Expense	1,800.00	
Office Supplies Used	130.00	
Office Supplies on Hand	60.00	
Accrued Wages		1,200.00
Accrued Interest on Notes Receivable	20.00	
Unexpired Insurance Premiums	60.00	
Rent Income		600.00
Rent Income Received in Advance		50.00
Prepaid Interest Expense	30.00	
Sales Discounts	2,400.00	
Totals	$225,490.00	$225,490.00

The inventory of merchandise on December 31, 1940, was $32,000.00. Ignore distinction between Selling and Administrative Expenses in preparing the Statement of Profit and Loss.

VII-2. Prepare a worksheet from the trial balance and adjustment data given below. Journal entries for adjustments are not required.

Trial Balance, Year Ended December 31, 1940

Cash	$ 3,879.50	
Notes Receivable	435.25	
Accounts Receivable	11,638.96	
Merchandise Inventory (Jan. 1, 1940)	18,110.89	
Store Equipment	2,000.00	
Shipping Room Equipment	345.65	
Office Equipment (Administrative)	700.00	
Shipping Supplies on Hand	200.00	
Office Supplies on Hand	275.50	
Prepaid Insurance Expense	184.00	
Notes Payable, Bank		$ 4,150.00
Accounts Payable		5,910.85
Capital Stock		20,000.00
Earned Surplus		3,573.53
Sales		108,952.75
Sales Returns	461.09	
Purchases	76,130.75	
Freight-In	1,337.38	
Purchase Returns		515.50
Delivery Expense	1,925.10	
Sales Salaries	16,225.75	
Advertising Expense	5,350.00	
Sundry Selling Expense	375.00	
Administrative Salaries	2,700.00	
Sundry Administrative Expense	543.15	
Purchase Discount		631.78
Interest Earned		10.50
Sales Discount	761.60	
Interest Expense	165.34	
Totals	$143,744.91	$143,744.91

ADJUSTMENT DATA:

a. Interest of $6.21 has accrued on Notes Receivable.

b. The last payday was December 28, 1940, and the following salaries had accrued at December 31, 1940:

Sales	$210.18
Administrative	78.12
Total	$288.30

(*Note: Credit accrual with total.*)

c. The trial balance shows shipping supplies on hand of $200.00, but an inventory at December 31, 1940, showed that the cost of those on hand at that date was only $120.00.

d. Inventory of Office Supplies at December 31, 1940, was only $62.00.

e. A list of the unexpired premiums on insurance policies in force at December 31, 1940, totaled $76.00.

f. Provision for depreciation in 1940:

Store Equipment	$200.00
Shipping Room Equipment	30.00
Office Equipment	70.00

g. Establish a Reserve for Bad Debts equal to 2% of the Accounts Receivable.

The inventory of merchandise taken at December 31, 1940, amounted to $20,150.10.

CHAPTER VIII

VIII-1. The trial balance shown below was prepared from the ledger of the Bellow's Wholesale Company on December 31, 1940.

BELLOW'S WHOLESALE COMPANY

Trial Balance, Year Ended December 31, 1940

Cash	$ 3,621.15	
Accounts Receivable	28,420.00	
Reserve for Bad Debts		$ 300.00
Merchandise Inventory	13,512.10	
Building	72,500.00	
Reserve for Depreciation, Bldg.		7,250.00
Furniture and Fixtures	15,800.00	
Reserve for Depreciation, Furniture and Fixtures		3,950.00
Land	10,000.00	
Prepaid Insurance Premiums	920.00	
Accounts Payable		12,752.60
Mortgage Payable		40,000.00
Prepaid Rent Income		1,200.00
T. R. Bellow, Capital		69,638.96
T. R. Bellow, Drawings	3,600.00	
Sales		115,000.00
Purchases	65,042.18	
Wages	28,418.10	
Taxes	2,609.67	
Building and Office Supplies Expense	387.00	
Advertising	1,921.14	
Utilities (Light, Gas, Etc.)	2,121.18	
Sundry Expense	219.04	
Interest Expense	1,000.00	
Totals	$250,091.56	$250,091.56

(1) Set up "T" accounts representing the ledger from which this trial balance was taken. (These accounts are set up for the student in the laboratory material, and it should be recognized that final balances only are shown. The many debits and credits made during the past year which produced these balances are not shown merely because they have no bearing on the problem.)

(2) Record the adjusting entries as they would appear in the journal of the company at December 31, 1940, from the data below. Explanations of adjustments may be omitted to conserve time.

a. Interest on the mortgage is at 5% annually, but the interest is payable semiannually on January 1 and July 1. Interest for six months, July 1, 1940, to December 31, 1940, has accrued at December 31, 1940.

b. On July 1, 1940, we received $1,200.00, covering the rent of the third floor of our building for the next twelve months.

c. An inventory of office supplies and of janitor's supplies totaled $120.00. These supplies are debited to the Building and Office Supplies Expense account when purchased.

d. The reserve for bad debts should be adjusted so that it will be equal to 3% of the accounts receivable.

e. Depreciation on the building is at 2% annually. Depreciation on furniture and fixtures is at 5% annually.

f. The prepaid insurance premiums at December 31, 1940, are only $560.00. In other words, $360.00 of the prepayments have expired.

g. Wages for December 30 and 31 have accrued since the last payday on Saturday, December 28—$208.00.

h. Expenses which have accrued:

Taxes	$267.00
Utilities	183.00
Total	$450.00

The utilities represent December bills for water, gas, telephone and telegraph, and electricity which will not be paid until January 1941.

Property taxes assessed against the building, accrue in advance of the date upon which they must be paid. Included in taxes are the social security taxes accrued in 1940 but not payable until 1941.

NOTE:

Liability for federal and state income taxes are not recorded in the records of the Bellow's Wholesale Company because Mr. Bellow has decided that the liability is his as an individual, and that there is no point in setting them up in the records of his business. Mr. Bellow has considerable income and expense outside of his business, and the income tax is assessed on his aggregate net income.

(3) Enter these adjustments opposite the trial balance and complete the worksheet. The inventory of merchandise on December 31, 1940, was $11,428.12.

(4) ~~Prepare the three statements.~~ Ignore distinction between selling and administrative expenses.

(5) Post the adjusting entries from the journal to the ledger accounts.

(6) Record the closing entries in the journal of the company as they would appear on December 31, 1940.

(7) Post the closing entries to the ledger accounts and properly rule all closed accounts.

(8) Prepare a post-closing trial balance from the ledger accounts.

(9) Record readusting entries in the journal under date of January 1, 1941. Explanations may be omitted.

(10) Post readjusting entries to the ledger accounts.

(11) Journalize, without explanations, the following summary of 1941 transactions:

1. Sales on account			$130,000.00
2. Purchases on account			71,200.00
3. Accounts receivable determined to be uncollectible and written off			371.78
4. Six-month note dated Sept. 1, 1941, bearing 6% interest received from customer on account			500.00
5. Cash Receipts:			
a. From customers on account		$122,310.02	
b. Cash sales		1,610.00	
c. Rent for 3rd floor of our building from July 1, 1941, to June 30, 1942		1,200.00	125,120.02
6. Cash Payments:			
a. Purchase of 2 delivery trucks on July 1, 1941, at $2,200 each		$4,400.00	
b. To merchandise creditors on account		74,320.00	
c. Wages		29,380.00	
d. Taxes		3,105.00	
e. Purchase of building and office supplies		310.00	
f. Advertising		2,100.00	
g. Utilities		2,109.40	
h. Sundry expenses		156.00	
i. Payment of insurance premiums in advance		118.00	
j. Interest on mortgage due Jan. 1, 1941	$1,000.00		
k. Interest on mortgage due July 1, 1941	1,000.00	2,000.00	
l. Withdrawal by T. R. Bellow		7,200.00	125,198.40

(12) Post the journal entries of step 11 to the ledger accounts.

(13) Adjust and close the books at December 31, 1941, and prepare statements for 1941.

(14) Journalize and post the readjusting entries of January 1, 1942.

Adjusting data at December 31, 1941:

a. Interest accrued on mortgage from July 1, 1941, to December 31, 1941.
b. Rent received in advance amounts to $600.00 at December 31, 1941.
c. Inventory of building and office supplies is $180.00.
d. Adjust reserve for bad debts to equal 3% of accounts receivable.
e. Depreciation on building—2% annually. Depreciation on furniture and fixtures—5% annually. Depreciation on delivery equipment—20% annually.
f. Insurance premiums prepaid at 12/31/41 amount to $268.00.
g. Wages accrued amount to $305.00.

h. Expenses which have accrued:

Taxes	$310.00
Utilities	176.00
Total	$486.00

i. Interest accrued on note receivable—$10.00 (4 months at 6% on $500.00). Inventory of merchandise on December 31, 1941, is $10,500.00.

CHAPTER IX

IX-1. You are employed in December 1940 to take over the financial books and records of the Winslow Company on January 1, 1941. You will continue to use the same journals which have been used in past years (as illustrated in Chapter IX), except that you will introduce a cash sales column in the cash receipts journal and the sales journal.

The trial balance taken from the general ledger, after readjusting entries have been posted therein, was as follows:

WINSLOW COMPANY

TRIAL BALANCE, JANUARY 1, 1941 (AFTER READJUSTING ENTRIES)

Cash	$ 4,200.00	
Accounts Receivable (trade)	12,310.20	
Reserve for Bad Debts		$ 492.41
Notes Receivable	3,000.00	
Merchandise Inventory	14,610.87	
Land	5,000.00	
Building and Equipment	38,120.10	
Reserve for Depreciation, Building and Equipment		7,418.00
Delivery Equipment	3,600.00	
Reserve for Depreciation, Delivery Equipment		1,980.00
Prepaid Insurance Premiums	221.00	
Accounts Payable (trade)		4,310.90
Notes Payable		5,000.00
H. Winslow, Capital		60,799.86
Office Salaries		913.00
Office Supply Expense	85.00	
Taxes		198.00
Interest Earned	15.00	
Interest Expense		50.00
Totals	$81,162.17	$81,162.17

(Balances in the expense and income accounts come from the readjusting entries of January 1, 1941.)

Set up ledger accounts for the above in the General Ledger and insert the opening balance under date of January 1, 1941.

(Note: The laboratory material accompanying this text contains these ledger accounts with balances inserted so that these instructions may be ignored where the laboratory material is being used.)

A list of balances prepared from the customers ledger on January 1, 1941 (before any 1941 postings had been made therein), was as follows:

Acre Company	$ 1,400.00
Best Sample Corporation	926.08
Holler Bakery	2,100.92
Hardy Stores	1,105.00
Harper, S. T.	562.10
Jones, H. R.	721.08
Merriam, R. S.	401.51
Murphy, J. W.	1,991.56
Sharpstone Drug Company	1,481.95
Winter and Son	1,620.00
Total	$12,310.20

Set up ledger accounts for the above in the customers ledger and insert the opening balances under date of January 1, 1941. (Note: The laboratory material accompanying this text contains these ledger accounts with balances inserted so that these instructions may be ignored where the laboratory material is being used.)

Observe that the total of this list agrees with the balance of the Accounts Receivable (trade) account in the general ledger.

A list of balances prepared from the creditors ledger on January 1, 1941 (before any 1941 postings had been made therein), was as follows:

Burns Corporation	$1,820.10
Everclean Corporation	182.00
Graham Company	321.92
Keokuk Company	1,100.00
Lakeside Laboratory	20.18
Lovell and Company	156.80
Perry Company	213.54
Survey Corporation	496.36
Total	$4,310.90

Set up ledger accounts for the above in the creditors ledger and insert the opening balances under date of January 1, 1941. (Note: The laboratory material accompanying this text contains these ledger accounts with balances inserted so that these instructions may be ignored where the laboratory material is being used.)

Observe that the total of this list agrees with the balance of the Accounts Payable (trade) account in the General Ledger.

Record the transactions for January, 1941, in the journals.

Foot and rule all journals at the end of January.

Post to the proper ledger accounts.

Prepare a trial balance of the general ledger on January 31, 1941.

Prepare a list of customers and their balances on January 31, 1941.

Prepare a list of creditors and their balances on January 31, 1941.

(Note: A discount of 2% is allowed to customers if payment is received by the tenth of the following month. Discounts are allowed on cash sales also, and Mr. Winslow requests that they be recorded.)

January 2 Received $393.48 cash from R. S. Merriam in full for the balance which was due us on January 1. Discount of $8.03 allowed.
Sold to R. S. Merriam on account:

Dept. A	$280.00
Dept. C	310.00
Total	$590.00

3 Paid Keokuk Company for balance due them on January 1 less 1% discount.
Purchased from Keokuk Company on account:

Dept. A	$600.00
Dept. B	321.08
Total	$921.08

4 Returned Dept. C merchandise purchased from Lakeside Laboratory—$20.18.
Paid office salaries for month of December 1940—$913.00.

6 Collected $1,016.33 from H. R. Jones on note receivable which came due today:

Face	$1,000.00
Interest	16.33
Total	$1,016.33

Sold to Best Sample Corporation on account:

Dept. A	$326.18
Dept. B	110.00
Total	$436.18

7 Purchased from Everclean Corporation on account:

Dept. A	$426.00
Dept. C	510.47
Total	$936.47

Holler Bakery paid the balance due us on January 1 as follows:

Cash	$1,078.90
Discount Allowed	22.02
Note for 30 days at 6%	1,000.00
Total	$2,100.92

8 Paid $200.20 to county treasurer for property taxes of 1940.
Paid $360.18 for repairs to building.

Cash sales as follows:

	A	B	Total
Sales price	$90.00	$120.00	$210.00
Discount	1.80	2.40	4.20
Cash	$88.20	$117.60	$205.80

January 9 Paid $45.00 for office supplies.
Paid $36.00 for additional fire insurance coverage for three years.
S. T. Harper returned Dept. C merchandise for credit—$48.00.

10 Paid $5,000.00 note due bank today, plus interest of $58.33.
Sold to Winter and Son on account:

Dept. A	$ 321.00
Dept. B	194.36
Dept. C	810.20
Total	$1,325.56

Received $1,587.60 cash from Winter and Son on account as follows:

Credit	$1,620.00
Discount	32.40
Net	$1,587.60

Received $1,452.31 cash from Sharpstone Drug Company on account as follows:

Credit	$1,481.95
Discount	29.64
Net	$1,452.31

Received $1,951.73 cash from J. W. Murphy in full for balance of January 1.
Received $907.56 cash from Best Sample Corporation in full for balance of January 1.
Paid $1,801.90 to Burns Corporation in full for balance of January 1. Discount of 1% allowed.

11 Purchased another truck at a cost of $2,500.00. Paid $1,500.00 cash and signed a 30-day 4% note for the balance.
Paid the following:

Lovell and Company	$156.80
Perry Company	213.54
Everclean Company	178.36

(Received a 2% discount on Everclean Corporation. No discount on others.)

13 Received $320.00 from Rice & Company for January 1941 rent of our second floor.

January 14 Collected $1,000.00 cash from Receiver of Acre Co. Remainder of account ($400.00) written off.

15 Sold to H. R. Jones on account:

Dept. B	$510.00
Dept. C	200.00
Total	$710.00

16 Cash Sales:

	A	B	C	Total
Sales price	$110.00	$205.00	$96.00	$411.00
Discount	2.20	4.10	1.92	8.22
Cash	$107.80	$200.90	$94.08	$402.78

17 Dept. C merchandise returned by Winter and Son for credit on Invoice #3—$205.00.

18 Dept. C merchandise returned to Everclean Corporation for credit on Order #2—$83.00.

20 Purchases on account as follows:

	A	B	C	Total
Order #3—Burns Corp.	......	$ 320.00	$194.80	$514.80
#4—Lakeside Lab.	$283.10	....	381.00	664.10
#5—Perry Co.	......	1,400.00	......	1,400.00
#6—Warner Bros.	782.00	....	86.00	868.00

21 Sales on account as follows:

	A	B	C	Total
Inv. #5—Hardy Stores	.....	$400.00	......	$400.00
#6—Holler Bakery	$300.00	....	......	300.00
#7—S. T. Harper	100.00	....	$328.10	428.10
#8—Sharpstone Drug	120.00	....	672.00	792.00
#9—Yardley Corp.	......	821.00	......	821.00

22 Dept. A merchandise which was sold for cash is returned and cash was refunded to customer—$36.00.

23 Dept. A merchandise sold on account returned for credit:

On Inv. #6—Holler Bakery	$ 50.00
On Inv. #8—Sharpstone Drug	120.00
Total	$170.00

24 Dept. B merchandise purchased on account returned for credit:

On Order #3—Burns Corp.	$320.00
On Order #5—Perry Co.	100.00
Total	$420.00

25 Borrowed $2,000.00 cash from bank on 30-day 6% note.

27 Sales of merchandise on account:

	A	B	C	Total
Inv. #10—R. S. Merriam	$410.00	......	......	$410.00
#11—J. W. Murphy	......	$219.18	......	219.18
#12—Winter & Son	300.00	......	$118.00	418.00

28 Purchases of Dept. C merchandise on account:

Order #7—Everclean Corp.	$620.00
#8—Survey Corp.	328.10

29 Mr. Winslow withdrew $200.00 cash.

30 Collections on account:

	Hardy Stores	Harper, S. T.	Merriam, R. S.
Credit	$800.00	$514.10	$590.00
Discount	......	......	11.80
Cash	$800.00	$514.10	$578.20

31 Payments on account:

	Graham Co.	Survey Corp.
Credit	$321.92	$496.36
Discount	3.22	4.96
Cash	$318.70	$491.40

Paid following:

Telephone and Telegraph Expense	$ 22.80
Light and Gas Expense	36.10
Office Salaries	952.00
Total	$1,010.90

IX-2. Prepare a departmental profit and loss statement for the X department store from the data given below. Show departmental gross profits but make no attempt to allocate expense to the departments.

	A	B	C
Sales	$210,000.00	$190,000.00	$110,000.00
Purchases	120,000.00	95,000.00	70,000.00
Inventories—Jan. 1, 1940	42.000.00	28,000.00	40,000.00
Dec. 31, 1940	38,000.00	26,000.00	34,000.00

Operating expenses for year are $180,000.00 for all departments.

Which department is operating least effectively from the viewpoint of merchandise turnover?

CHAPTER X

X-1. The following information was taken from the records of the Harris Manufacturing Company:

Dec. 1. Materials Inventory	$10,000.00
Dec. 1. Work in Progress Inventory	16,000.00
Dec. 1. Finished Goods Inventory	20,000.00

Sales	$ 40,000.00
Returned Sales	1,000.00
Material Purchases	16,000.00
Freight-In	1,000.00
Returned Purchases	800.00
Factory Rent	600.00
Depreciation of Factory	200.00
Heat, Light, and Power	500.00
Factory Supplies Used	200.00
Insurance—Factory	120.00
Direct Labor	7,000.00
Indirect Labor	1,400.00
Selling Expenses	2,400.00
General Expenses	2,800.00
Dec. 31. Materials Inventory	9,000.00
Dec. 31. Work in Progress Inventory	14,000.00
Dec. 31. Finished Goods Inventory	18,000.00

a. Prepare a statement of cost of goods finished.
b. Prepare a statement of profit and loss.

X-2. Prepare a balance sheet from the following list of items for the Lacquer Manufacturing Company:

Cash	$ 16,000.00
Notes Receivable	8,000.00
Accounts Receivable	110,000.00
Plant and Equipment	280,000.00
Reserve for Depreciation of Plant and Equipment	90,000.00
Reserve for Bad Debts	5,000.00
Accounts Payable	70,000.00
Indirect Material and Supplies on Hand	3,000.00
Accrued Wages	12,000.00
Prepaid Insurance and Miscellaneous Expenses	1,000.00
Accrued Interest Income	300.00
Accrued Interest Expense	1,800.00
Mortgage Payable	100,000.00
Raw Material Inventory	30,000.00
Work in Progress Inventory	20,000.00
Finished Goods Inventory	40,000.00
N. A. Smith, Capital (to be determined by student)	

X-3. From the following information prepare statement of the cost of goods finished in 1940 for the Adams Manufacturing Company:

Direct Labor	$18,000.00
Indirect Labor	4,000.00
Raw Material Purchases	30,000.00
Depreciation Expense, Factory	3,000.00
Taxes and Insurance Expense, Factory	1,000.00
Freight-In on Raw Material	2,000.00
Raw Material Returns	500.00
Factory Supplies Used	600.00
Light, Heat, and Power, Factory	2,000.00

Inventories, Jan. 1, 1940:	
Raw Material	$40,000.00
Work in Progress	10,000.00
Finished Goods	60,000.00
Inventories, Dec. 31, 1940:	
Raw Material	38,000.00
Work in Progress	11,000.00
Finished Goods	63,000.00

X-4. *a.* Copy[1] the following adjusted trial balance on analysis paper and extend the items to the cost of goods finished column, the profit and loss column, and the balance sheet column.

b. Prepare:

Exhibit A—Balance Sheet, December 31, 1940.
Exhibit B—Statement of Cost of Goods Finished for 1940.
Schedule B-1. Manufacturing Expenses for 1940.
Exhibit C—Profit and Loss Statement for 1940.
Exhibit D—Statement of Surplus for 1940.

c. Show the closing entries as they would appear in the general journal.

HOLMES MANUFACTURING COMPANY

ADJUSTED TRIAL BALANCE, DECEMBER 31, 1940

Accounts		Debit	Credit
Sundry Other Assets		$50,000.00	
Jan. 1, 1940, Materials Inventory		5,000.00	
Jan. 1, 1940, Work in Progress Inventory		8,000.00	
Jan. 1, 1940, Finished Goods Inventory		10,000.00	
Sundry Liabilities			$25,000.00
Capital Stock Issued and Authorized			35,000.00
Earned Surplus			9,210.00
Sales			20,000.00
Returned Sales		500.00	
Material Purchases		8,000.00	
Freight-In		500.00	
Returned Purchases			400.00
Factory Rent		300.00	
Depreciation, Factory Equipment		100.00	
Heat, Light, Power		250.00	
Factory Supplies Used		100.00	
Insurance, Factory		60.00	
Direct Labor		3,500.00	
Indirect Labor		700.00	
Selling Expenses		1,200.00	
General Expenses		1,400.00	
Totals		$89,610.00	$89,610.00
INVENTORIES AT DECEMBER 31, 1940:			
Materials	$4,500.00		
Work in Progress	7,000.00		
Finished Goods	9,000.00		

[1] It will not be necessary to copy the trial balance on analysis paper if the laboratory material is in use.

X-5. Prepare a worksheet from the following:

CURRY MANUFACTURING CORPORATION
TRIAL BALANCE, DECEMBER 31, 1940

Account Titles	Debit	Credit
Cash	$ 30,000.00	
Accounts Receivable	410,000.00	
Reserve for Bad Debts	....	$ 2,000.00
Raw Material Inventory, Jan. 1, 1940	140,000.00	
Work in Progress Inventory, Jan. 1, 1940	30,000.00	
Finished Goods Inventory, Jan. 1, 1940	300,000.00	
Plant and Equipment	2,200,000.00	
Reserve for Depreciation, Plant and Equipment	....	400,000.00
Factory Supplies on Hand	12,000.00	
Office Supplies on Hand	2,000.00	
Prepaid Insurance	6,000.00	
Accounts Payable	....	90,000.00
Notes Payable, Banks	....	40,000.00
Dividends Payable (Due Feb. 1, 1941)	....	30,000.00
Seven Per Cent Bonds Payable (Due in 1950)	....	100,000.00
Issued Common Stock (Authorized $1,000,000.00)	....	1,000,000.00
Issued Preferred Stock (Authorized $500,000.00)	....	500,000.00
Surplus *	....	800,300.00
Sales	....	1,500,000.00
Sales Returns and Allowances	30,000.00	
Raw Material Purchases	200,000.00	
Raw Material Purchase Returns and Allowances	....	16,000.00
Freight-In on Raw Material	20,000.00	
Direct Labor	300,000.00	
Manufacturing Expenses:		
Power, Light, and Heat	80,000.00	
Insurance	12,000.00	
Taxes	10,000.00	
Repairs	22,000.00	
Miscellaneous	18,000.00	
Indirect Labor	110,000.00	
Selling Expenses:		
Light and Heat	8,000.00	
Insurance	3,000.00	
Taxes	2,000.00	
Repairs	3,000.00	
Salaries	210,000.00	
Advertising	80,000.00	
Delivery	20,000.00	
Miscellaneous	6,000.00	
Administrative Expenses:		
Light and Heat	3,000.00	
Insurance	1,000.00	
Taxes	800.00	
Repairs	1,500.00	
Salaries	180,000.00	
Miscellaneous	9,000.00	
Non-Operating Expenses:		
Interest Cost	4,000.00	
Sales Discount	20,000.00	
Loss on Sale of Equipment	6,000.00	
Non-Operating Incomes:		
Purchase Discount	....	8,000.00
Miscellaneous	....	3,000.00
	$4,489,300.00	$4,489,300.00

* On January 1, 1940, the earned surplus was $820,300.00. A dividend of 6% on issued preferred stock amounting to $30,000.00 was declared on December 1, 1940, payable February 1, 1941. At that time Surplus was debited and Dividends Payable was credited. On January 31, 1940, Surplus was credited with $10,000.00—premium on sale of preferred stock.

ADJUSTMENTS, DECEMBER 31, 1940

A. Inventories December 31, 1940:

Raw Materials	$120,000.00
Work in Progress	15,000.00
Finished Goods	250,000.00
Factory Supplies	3,000.00
Office Supplies	1,500.00

(Charge office supplies used to Miscellaneous Administrative Expense.)

B. Accruals:

Taxes	$2,000.00
Direct Labor	3,000.00
Indirect Labor	1,000.00
Selling Salaries	2,000.00
Administrative Salaries	1,800.00
Total	$9,800.00

Set up liability for above accruals in one amount as accrued expenses.

Charge taxes to manufacturing, selling, and administrative divisions based on proportion of assets used by each as follows:

Manufacturing	$1,450,000.00
Selling	500,000.00
Administrative	250,000.00
Total	$2,200,000.00

C. Depreciation:

Three per cent of cost on plant and equipment. Charge depreciation expense to manufacturing, selling, and administrative based on proportion of assets used by each. (See adjustment B.)

D. Bad Debts:

Estimated to be 1% of net sales. (Charge to selling division.)

E. Expired Insurance:

Manufacturing	$3,000.00
Selling	700.00
Administrative	300.00
Total	$4,000.00

This will leave the amount prepaid at only $2,000.00.

F. Federal Income Tax for 1940.

This is calculated to be approximately 18% of the net profit for 1940. The adjustment should be made as a debit to Surplus and a credit to Estimated Federal Income Tax. Surplus is debited because this is in reality a distribution of profits to the United States government. Estimated Federal Income Tax is credited because the tax is payable in 1941, and this item must be shown as a current liability on the balance sheet of December 31, 1940. The cost of goods finished column and the profit and loss column of the worksheet must be completed before this adjustment can be made. It will be necessary then to go back and insert the adjustment, extend it properly, correct the adjusted trial balance column totals, and complete the balance sheet column. If the corporation operated at a loss this adjustment is unnecessary as no tax is payable.

X-6. Prepare the following from information in problem **5**:

Exhibit A—Balance Sheet, December 31, 1940.

Exhibit B—Statement of Cost of Goods Finished, Year Ended December 31, 1940.

Schedule B-1—Manufacturing Expenses, Year Ended December 31, 1940.

Exhibit C—Profit and Loss Statement, Year Ended December 31, 1940.

Schedule C-1—Selling Expenses, Year Ended December 31, 1940.

Schedule C-2—Administrative Expenses, Year Ended December 31, 1940.

Exhibit D—Statement of Surplus, Year Ended December 31, 1940.

Exhibit E—Ratios, Year Ended December 31, 1940.

a. Percentage of Operating Profit or Loss
b. Gross Profit Percentage
c. Turnover of Raw Material
d. Turnover of Finished Goods
e. Percentage Return on Investment (Net Worth)
f. Working Capital Ratio
g. Percentage of Selling Expenses to Net Sales
h. Percentage of Administrative Expenses to Net Sales

CHAPTER XI

Rule a voucher register with the following money columns: vouchers payable credit; direct material purchases debit; factory supplies debit; direct labor debit; selling salaries debit; administrative salaries debit; and sundry debit. Rule a check register similar to the one illustrated in Fig. 33. Starting with voucher 1 and check 1, record the following transactions in these journals. After all transactions have been recorded, foot all columns, post to "T" accounts, and prepare a list of accounts with their balances. Prepare another list of all unpaid vouchers according to open items in the paid column of the voucher register and compare the total of these items with the Vouchers Payable account balance. (Criticize the columnar arrangement of this voucher register.)

June 1 Voucher 1. Purchase of raw material from Ladd Corporation, $1,100.00
2 Voucher 2. Purchase of delivery truck from Freedom Auto Company, $1,200.00.
3 Voucher 3. To authorize payment of note for $1,600.00 and interest of $32.00. This note is payable to Stevens Company and is due today.
3 Check 1. In payment of voucher 3.
4 Voucher 4. Purchased factory supplies from Larry Corporation, $800.00.
4 Voucher 5. Purchased adding machine from Rand-Smith Company, $120.00. (Debit Office Equipment.)
5 Voucher 6. Purchased raw material from the Canton Corporation, $900.00.
6 Voucher 7. To authorize payment of weekly payroll as follows:

Direct Labor	$ 800.00
Indirect Labor	600.00
Selling Salaries	900.00
Administrative Salaries	600.00
Total	$2,900.00

June 6 Check 2. In payment of voucher 7.
8 Check 3. In payment of voucher 1 less 2% discount.
9 Voucher 8. Purchased factory supplies from the Libbey Company $300.00.
10 Voucher 9. To authorize the establishment of a petty cash fund of $30.00.
10 Check 4. In payment of voucher 9.
11 Check 5. In payment of voucher 4 less 2% discount.
12 Voucher 10. To authorize payment of bill received from Venus, Inc., for advertising, $130.00.
13 Voucher 11. To authorize payment of weekly payroll as follows:

Direct Labor	$ 820.00
Indirect Labor	580.00
Selling Salaries	850.00
Administrative Salaries	400.00
Total	$2.650.00

13 Check 6. In payment of voucher 11.
15 Check 7. In payment of voucher 8 less 1% discount.
16 Voucher 12. To authorize payment of repair bill received from 12th St. Garage, $80.00. (Debit Repair Expense.)
17 Voucher 13. Purchased raw material from Ladd Corporation, $1,500.00.
18 Voucher 14. Purchased factory supplies from Simplex and Company, $250.00.
19 Check 8. In payment of voucher 6 less 2% discount.
20 Voucher 15. To authorize payment of weekly payroll as follows:

Direct Labor	$ 800.00
Indirect Labor	640.00
Selling Salaries	850.00
Administrative Salaries	400.00
Total	$2,690.00

20 Check 9. In payment of voucher 15.
22 Voucher 16. To authorize return of $200.00 to customer. (Debit Sales Returns.)
22 Check 10. In payment of voucher 16.
25 Voucher 17. Purchased factory supplies from Corlett and Smith, $350.00.
26 Check 11. In payment of voucher 5.
27 Voucher 18. To authorize payment of weekly payroll as follows:

Direct Labor	$ 700.00
Indirect Labor	300.00
Selling Salaries	850.00
Administrative Salaries	400.00
Total	$2,250.00

27 Check 12. In payment of voucher 18.
29 Check 13. In payment of voucher 17 less 2% discount.
30 Voucher 19. Purchased raw material from Simplex, Inc., $1,300.00

June 30 Voucher 20. To authorize the reimbursement of petty cash because of disbursements which had been made as follows:

Telegrams	$13.80
Miscellaneous	6.00
Total	$19.80

(Debit Telephone and Telegraph Expense and Miscellaneous Administrative Expense, respectively.)

30 Check 14. In payment of voucher 20.

CHAPTER XII

XII-1. *a.* Prepare a voucher register with columnar headings as follows: date; vendor's name; voucher number; paid (date and check number); vouchers payable credit; direct labor; direct material; manufacturing expense; selling expense; administrative expense; fixed assets; sundry (L.F., account, and amount). Prepare a manufacturing expense analysis with the following columns, left to right: date; reference; indirect labor; supplies; light and power; depreciation; taxes; insurance; repairs; total. Prepare a selling expense analysis with columns headed as follows, from left to right: date; reference; salaries; supplies; light and power; advertising; insurance; taxes; depreciation; delivery expense; telephone and telegraph; total. Also prepare an analysis of administrative expense with the following columns, left to right: date; reference, salaries; supplies; light and power; insurance; taxes; depreciation; miscellaneous; telephone and telegraph; total.

b. Record the following vouchers in the voucher register and then in the proper expense ledgers:

Voucher 1. Date, June 5
Vendor, Jackson Company
Covering, Advertising Expense for June, $600.00

Voucher 2. Date, June 6
Vendor, Johnson Supply Company

Covering, Supplies for Administrative Division	$100.00
Supplies for Sales Division	206.50
	$306.50

Voucher 3. Date, June 7
Vendor, Payroll
Covering, last week's wages as follows:

Indirect Labor	$ 700.00
Direct Labor	1,300.00
Salesmen's Salaries	950.00
Administrative Salaries	800.00
Total	$3,750.00

Voucher 4. Date, June 9
Vendor, Simplex Corporation
Covering, repair of conveyor belt in factory, $32.40

Voucher 5. Date, June 10
Vendor, Landow Company
Covering, repair to delivery trucks, $83.10 (Delivery Expense)

Voucher 6. Date, June 11
Vendor, Deering and Company
Covering, oil and gas for delivery trucks, $95.20 (Delivery Expense)

Voucher 7. Date, June 12
Vendor, County Treasurer
Covering, auto license for three new delivery trucks, $60.00 (Taxes)

Voucher 8. Date, June 13
Vendor, Petty Cash
Covering, reimbursement of petty cash fund because of disbursements as follows:

Telegrams	$16.80	(Selling Expense)
Parcel Post	4.60	(Selling Expense, Delivery)
Miscellaneous	10.20	(Administrative Expense)
Total	$31.60	

Voucher 9. Date, June 14
Vendor, Payroll
Covering, last week's wages as follows:

Indirect Labor	$ 650.00
Direct Labor	1,100.00
Salesmen's Salaries	950.00
Administrative Salaries	800.00
Total	$3,500.00

Voucher 10. Date, June 16
Vendor, Mutual Insurance Company
Covering, fire insurance on buildings and contracts and trucks as follows:

Factory	$310.00
Sales Division	260.00
Administrative Division	140.00
Total	$710.00

Voucher 11. Date, June 17
Vendor, Jackson Supply Company
Covering, supplies as follows:

Factory	$60.00
Sales Division	10.00
Total	$70.00

Voucher 12. Date, June 18
Vendor, Pennsylvania Railroad Company
Covering, freight bills for first two weeks of June as follows:

Freight-In	$620.00	
Freight-Out	125.00	(Delivery Expense)
Total	$745.00	

Voucher 13. Date, June 19
Vendor, Seaman Corporation
Covering, purchase of raw materials, $17,420.00

Voucher 14. Date, June 20
Vendor, First National Bank
Covering, note payable ($1,000.00) and interest ($10.00) due today

Voucher 15. Date, June 21
Vendor, Payroll
Covering, last week's wages as follows:

Indirect Labor	$ 624.60
Direct Labor	1,021.20
Salesmen's Salaries	900.00
Administrative Salaries	820.00
Total	$3,365.80

Voucher 16. Date, June 26
Vendor, Gibratal Insurance Company
Covering, employer liability insurance as follows:

Factory Employees	$ 92.10
Sales Division Employees	18.20
Administrative Division Employees	32.70
Total	$143.00

Voucher 17. Date, June 26
Vendor, Payroll
Covering, last week's wages as follows:

Indirect Labor	$ 600.00
Direct Labor	1,100.00
Salesmen's Salaries	900.00
Administrative Salaries	800.00
Total	$3,400.00

Voucher 18. Date, June 30
Vendor, Light and Power Company
Covering, light and power for June as follows:

Factory	$460.00
Sales Division	58.00
Administrative Division	61.00
Total	$579.00

Voucher 19. Date, June 30
Vendor, Telephone and Telegraph Company
Covering, telephone and telegrams for June as follows:

Sales Division	$321.40
Administrative Division	110.00
Total	$431.40

Voucher 20. Date, June 30
Vendor, Petty Cash
Covering, reimbursements of petty cash fund as follows:

Telegrams	$13.10	(Selling)
Supplies	9.20	(Selling)
Supplies	12.10	(Administrative)
Total	$34.40	

Voucher 21. Date, June 30
Vendor, Gibson Toweling Co.
Covering, purchase of paper towels for use as follows:

Factory	$13.00	(Supplies)
Administrative Division	6.00	(Supplies)
Total	$19.00	

Voucher 22. Date, June 30
Vendor, Seaman Corporation
Covering, purchase of raw material $3,000.00

Voucher 23. Date, June 30
Vendor, Randall and Sons
Covering, purchase of a delivery truck for $2,000.00

Voucher 24. Date, June 30
Vendor, Seaman Corporation
Covering, purchase of raw material $4,000.00

Voucher 25. Date, June 30
Vendor, Smith and Company
Covering, purchase of ten band-saws @ $600.00 each

c. Record the following adjustments in the general journal. Use the simple form of journal with one debit column and one credit column. Also record these adjustments in the expense analysis sheets.

A. Depreciation:

Factory Assets	$1,600.00
Selling Assets	400.00
Administrative Assets	200.00

B. Accrued Taxes:

Factory	$ 300.00
Selling	100.00
Administrative	50.00

C. Supplies on Hand:

Factory	$ 20.00
Selling	110.00
Administrative	40.00

(Debit Supplies on Hand for $170.00.)

d. Foot and rule the three expense analysis sheets.

e. Post from the voucher register and the general journal to general ledger accounts. Set up "T" accounts for this purpose.

f. Prepare a list of general ledger account balances and then compare the balance of each controlling expense account with the total shown on each corresponding analysis sheet.

CHAPTER XIII

XIII-1. A machine cost $15,000.00 on January 2, 1934. Using information shown below, prepare a table of depreciation, working-units method, and a table of depreciation, sum of year's digits method:

Estimated Salvage Value, $1,000.00.
Estimated Years of Useful Service Life, 7 years.
Estimated Units Machine is Capable of Producing, 14,000.

ACTUAL RECORD OF UNITS PRODUCED:

1933	1,000
1934	1,500
1935	3,000
1936	3,000
1937	1,000
1938	2,000
1939	2,500
	14,000

XIII-2. An analysis of the Land and Building account as shown by the ledger of the Tipton Company disclosed that the following entries have been made therein: Debits: cost of lot and old brick building, $45,000.00; title insurance, $700.00; assessment for street improvement, $1,200.00; recording fee for deed, $50.00; cost of razing old building, $3,000.00; and erection of new building, $100,000.00. Total debits = $149,950.00. Credits: none.

The depreciated value of the old building, as shown by the books of the company from which the purchase was made, was $12,000.00.

No depreciation has accrued on the new building.

Material salvaged from the old building was valued at $3,000.00 and was used in constructing the new building. This is not included in the cost of $100,000.00.

The old building was razed immediately after the purchase.

REQUIRED:

Journal entries to close out the Land and Building account and to set up a Land account and a Building account.

XIII-3. The John Doe Manufacturing Company purchased on March 1, as a site for a factory, a certain parcel of land on which some old tenement buildings were standing. The cost was $25,000.00, and on the seller's books the land was carried at $10,000.00 and the buildings at $8,000.00.

It cost the John Doe Manufacturing Company $1,500.00 to remove the dwelling houses to make room for the factory, but $200.00 was received from the sale of salvaged material.

It took two months to build the factory. The contract was for $40.000.00 which was paid in two installments—$20,000.00 on April 1 and $20,000.00 on May 1.

The company was forced to borrow $10,000.00 on May 1 at 6% interest, to make the second payment.

The real estate, after the factory was completed, was assessed at $48,000.00, as follows:

Land	$16,000.00
Building	32,000.00
Total	$48,000.00

On the assessed value the company paid taxes from March 1 on the land and from May 1 on the building at the annual rate of $22.00 per $1,000.00.

Insurance for $10,000.00 on the construction work was taken out on March 1. This was increased to $28,000.00 on April 15. The insurance premiums paid were at the rate of $2.50 for every $100.00 of insurance for a period of three years.

Legal fees covering search of title to the property were $100.00.

At what net amounts should the land and the building be stated on the balance sheet at December 31 of the year of construction?

Assume annual depreciation rate of 2%.

Show computations.

CHAPTER XIV

XIV-1. Delivery truck 1 was purchased January 6, 1930, at a cost of $3,000.00. Delivery truck 2 was purchased on June 30, 1931, at a cost of $2,000.00. Depreciation of delivery equipment is recorded annually on December 31 of each year by the straight-line method. Each truck has an estimated life of five years and no scrap value. (Yearly rate of depreciation = 20%.) On June 30, 1933, truck 1 is sold for $800.00.

REQUIRED:

a. Transcript of Delivery Equipment account and Reserve for Depreciation of Delivery Equipment account as they appear January 1, 1933.
b. Journal entry to record depreciation accrued on truck 1 from January 1, 1933, to June 30, 1933.
c. Journal entry to record sale of truck 1.
d. Adjusting entry for depreciation, December 31, 1933.
e. Amount of depreciation expense on delivery equipment in 1933.

XIV-2. A building was purchased on January 1, 1930, for $80,000.00. Its life was estimated to be 40 years and its scrap value $6,000.00. Straight-line depreciation was recorded annually on December 31 of each year. An appraisal on January 4, 1933, revealed that it would cost $120,000.00 to replace it at that time. Show the debits and credits which are necessary to record the appraisal. Also, show the adjusting entries for depreciation on December 31, 1933. The original estimate of life and scrap value were not changed by the appraisal.

XIV-3. A building was purchased on January 1, 1935, for $70,000.00. Its life was estimated at that time to be 30 years with a salvage value of $10,000.00. Straight-line depreciation has been recorded annually on December 31 of each year.

An appraisal on January 4, 1941, revealed that replacement cost is the same as actual cost but that the life of the building will be 10 years longer than was originally estimated, and that the salvage value at the end of its useful life will be about $6,000.00 rather than $10,000.00.

REQUIRED:

Entries to record the appraisal as of January 4, 1941, and for depreciation as of December 31, 1941.

XIV-4. A building was purchased for $100,000.00 on January 1, 1930. At that time its useful life was estimated to be 50 years with a salvage value of $10,000.00. Depreciation has been recorded annually on December 31 of each year on a straight-line basis.

On January 2, 1940, an appraisal reflects the following:

Replacement cost	$120,000.00
Expected life from 1–1–40	30 years
Probable salvage value	$ 15,000.00

REQUIRED:

Entries to record the appraisal on January 1, 1940, and to record depreciation on December 31, 1940.

XIV-5. On June 30, 1940, the X Corporation traded in one of its delivery trucks for a new one costing $4,000.00. A trade-in allowance of $800.00 was allowed for the old truck and the remainder was paid in cash. The old truck had been purchased on April 1, 1938, at a cost of $3,000.00.

Depreciation on the old truck has been recorded annually on December 31 of each year at the rate of 2% of cost per month.

REQUIRED:

Entry or entries to record trade-in.

XIV-6.

BURKE MANUFACTURING COMPANY

POST-CLOSING TRIAL BALANCE, DECEMBER 31, 1940

Cash	$ 3,800.00	
Accounts Receivable	15,000.00	
Inventory	5,000.00	
Land	2,000.00	
Buildings	40,000.00	
Reserve for Depreciation, Bldg.		$ 5,000.00
Machinery	21,000.00	
Reserve for Depreciation, Machinery		10,000.00
Accounts Payable		6,000.00
Notes Due Banks		4,000.00
Capital Stock, Authorized and Issued		50,000.00
Earned Surplus		11,800.00
Totals	$86,800.00	$86,800.00

An appraisal of the plant on December 31, 1940, showed the following values as of that date:

	Replacement Value	Dep. on Replacement	Sound Value
Land	$ 3,000.00	....	$ 3,000.00
Buildings	60,000.00	$12,000.00	48,000.00
Machinery	30,000.00	20,000.00	10,000.00

REQUIRED:

Entries to record the appraisal on the books of the company at January 2, 1941, and a balance sheet at that date.

CHAPTER XV

XV-1. The post-closing trial balance of Harrick and Stone, Inc., appears below:

HARRICK AND STONE, INC.

POST-CLOSING TRIAL BALANCE, DECEMBER 31, 1940

Cash	$ 18,000.00	
Subscriptions Receivable, Common	70,000.00	
Accounts Receivable	60,000.00	
Reserve for Bad Debts		$ 3,000.00
Merchandise Inventory	35,000.00	
Plant and Equipment	410,000.00	
Reserve for Depreciation, Plant and Equip.		95,000.00
Prepaid Insurance Premiums	1,800.00	
Office Supplies on Hand	400.00	
Accounts Payable		12,000.00
Accrued Expenses		4,000.00
Dividend Payable, Common		18,000.00
Dividend Payable, Preferred		5,400.00
Mortgage Bonds Payable, Due 1950		50,000.00
Common Stock Unissued	300,000.00	
Common Stock Authorized		500,000.00
Common Stock Subscribed		100,000.00
6% Preferred Stock Unissued	400,000.00	
6% Preferred Stock Authorized		500,000.00
Treasury Stock, 6% Preferred (at par)	10,000.00	
Discount on Common Stock	5,000.00	
Premium on 6% Preferred Stock		8,000.00
Earned Surplus		14,800.00
Totals	$1,310,200.00	$1,310,200.00

Prepare a balance sheet.

(1) The common and preferred stock are both $100.00 par value shares.

(2) Assume that the unpaid subscriptions may be collected but that there is some question as to just when they will be collected.

XV-2. *a.* Journalize the following:

Jan. 2 The Martin Corporation received its charter authorizing a capitalization of 1,000 shares of 6% preferred stock, par $100.00 each, and 5,000 shares of no-par common stock.

Jan. 8 Issued 100 shares of no-par common for cash at $40.00 per share. Issued 100 shares of preferred for cash at $100.00 per share.

Jan. 10 Received subscriptions for 2,000 shares of no-par common at $50.00 per share. A 10% cash payment was required upon subscription and the balance is due upon demand by the corporation.

Jan. 14 Received subscriptions for 500 shares of the preferred stock at $110.00 per share. A cash payment of 50% was required upon subscription and the balance is due in two equal calls.

Jan. 20 The corporation called for payment on amounts due on the no-par subscriptions. One subscriber for 50 shares defaulted, but the remaining subscriptions were collected in full and the stock was issued.

Jan. 22 Returned down payment of the no-par common subscriber who defaulted.
Jan. 24 Call #1 on preferred subscriptions collected in full.
Jan. 25 Reacquired for cash, at $90.00 per share, 25 of the preferred shares issued on the eighth.
Jan. 27 Sold 10 of the 25 treasury shares for cash at $105.00 per share.

b. Post the journal entries to "T" accounts and prepare a trial balance.
c. Prepare a balance sheet from the trial balance information.

XV-3. Prepare journal entries to record the following transactions:

The Montieth Corporation has an authorized issue of $100,000.00 of 6% preferred cumulative stock, par $100.00 each. Seven hundred (700) shares are subscribed for at 20% above par on terms of 10% down and the balance in three equal calls. All the subscribers pay their first call in full. One subscriber for 10 shares failed to pay his second and third calls and forfeits his subscription. The corporation will refund part of his payments later. The remaining subscribers pay the second and third calls as they come due and shares are duly issued.

XV-4. The Tillson Company has common $100.00 par value stock of $400,000.00 outstanding, an earned surplus of $25,000.00, and a paid-in surplus, arising from premiums on common stock, of $40,000.00. The company acquires, by donation, $10,000.00 par value stock and, by purchase, $50,000.00 par value stock at a cost of $80,000.00. Subsequently one-half of the treasury shares are sold for $33,000.00.

a. Prepare journal entries to record acquisition and sale of the treasury stock.
b. Show net worth section of balance sheet after effect has been given to these entries.
c. Comment on the propriety of these transactions.

XV-5. The Grant Corporation has the following stock outstanding:

(1) 6% Preferred, Cumulative and Non-Participating, par $100.00 each, 2,000 shares.

(2) No-Par Common, 5,000 shares.

On December 1, 1940, the Board of Directors declared the regular annual dividend on the preferred stock and a dividend of $2.00 a share on the no-par common stock. These dividends were of record December 20, 1940, and were payable January 3, 1941.

REQUIRED:

a. Journal entries necessary at December 1, 1940; December 20, 1940, and January 3, 1941.
b. How would the balance sheet of December 31, 1940, be affected by the board's resolution?

XV-6. The Ashany Company had 1,000 shares of common stock outstanding, par $100.00 each. On December 1, 1940, the board of directors declare a 25% stock dividend as of record December 20, 1940, date of issue January 3, 1941.

REQUIRED:

a. Journal entries necessary on December 1 and 20, 1940, and on January 3, 1941.
b. Effect of the resolution on the balance sheet of December 31, 1940.

CHAPTER XVI

The trial balance of the Old Manufacturing Company on December 31, 1940, is given below.

Cash	$ 5,261.18	
Receivables	12,810.20	
Stores	2,380.40	
Work in Progress	6,608.80	
Finished Goods	9,344.00	
Land	10,000.00	
Plant and Equipment	30,000.00	
Vouchers Payable		$ 8,210.20
Accrued Payroll		79.00
Reserve for Depreciation, Plant, and Equipment		9,000.00
Capital Stock Authorized		100,000.00
Capital Stock Unissued	50,000.00	
Earned Surplus		9,115.38
Totals	$126,404.58	$126,404.58

The company manufactures two products, X and Y. Product X requires 8 units of material A and 2 units of material B. Product Y requires 4 units of material A and 6 units of material B. Material C is used for factory repairs. Overhead is applied on a basis of 120% of direct labor cost.

Balances in the stores ledger at December 31, 1940, were as follows:

Material A— 50 units at $2.160 per unit =	$ 108.00
Material B—560 units at $3.220 per unit =	1,803.20
Material C— 92 units at $5.100 per unit =	469.20
Total	$2,380.40

The in-progress file of incompleted production orders at December 31, 1940, contained the following production order cost sheets:

COST SHEET FOR PRODUCTION ORDER #254

Manufactured for: Stock

Description: 120 units of Product Y

Date started: December 16, 1940

Date finished: January 4, 1941

Date	Direct Material Stores Req. No.	Amount	
1940			
12–18	49	$1,210.00	
12–22	54	921.60	
12–23	56	987.20	
		$3,118.80	
	Direct Labor		
From re-cap of daily time tickets—December 1940		$ 420.00	
	Overhead		
120% of Direct Labor at 12–31–40		$ 504.00	
Total cost 120 @			

NOTE: Work in Progress at 12–31–40:

Material	$3,118.80
Labor	420.00
Overhead	504.00
	$4,042.80

COST SHEET FOR PRODUCTION ORDER #261

Manufactured for ______ Stock

Description ______ 100 units of Product X

Date started ______ December 20, 1940

Date finished ______ January 8, 1941

Direct Material

Date	Stores Req. No.	Amount
1940		
12–20	51	$1,622.10
12–24	57	512.70
		$2,134.80

Direct Labor

From re-cap of daily time tickets—December 1940	$ 196.00

Overhead

120% of Direct Labor at 12–31–40	$ 235.20

Total cost 100 @

NOTE: Work in Progress at 12–31–40:

Material	$2,134.80
Labor	196.00
Overhead	235.20
	$2,566.00

Balances in the finished goods ledger were as follows:

Product X—100 units at $30.20 per unit =	$3,020.00
Product Y—170 units at $37.20 per unit =	6,324.00
Total	$9,344.00

1. Summary of January, 1941, totals in voucher register, sales journal, check register and cash receipts journals are given below.

VOUCHER REGISTER FOR JANUARY 1941

Date	Voucher No.	Vendor	How Paid	Credit	Debits					
				Vouchers Payable	Stores	Mfg. Expense	Selling Expense	Admin. Expenses	Accrued Payroll	Prepaid Expenses
		January 31 totals		9,292.18	5,080.00	262.18	1,592.80	1,310.20	885.00	162.00

Sales Journal for January 1941

Date	Inv. No.	Customer	L.F.	Debits: Accounts Receivable	Debits: Cash Sales	Credits: Sales of X	Credits: Sales of Y
	January 31 totals			16,410.00	490.00	8,400.00	8,500.00

NOTE: Product X is sold for $40.00.
Product Y is sold for $50.00.

Check Register for January 1941

Date	Check No.	Payee	Voucher No.	Debit: Vouchers Payable	Credits: Purchases Discount	Credits: Cash
		January 31 totals		10,318.16	143.00	10,175.16

Cash Receipts Journal for January 1941

Date	Explanation	L.F.	Credits: Accounts Receivable	Credits: Cash Sales	Debits: Sales Discount	Debits: Cash
	January 31 totals		11,826.00	490.00	210.00	12,106.00

2. Receiving reports issued in January are listed below:

Number	Date	Material	Units	Unit Cost	Total
116	1-2	C	50	$5.50	$ 275.00
117	1-3	A	500	2.20	1,100.00
118	1-11	A	250	2.30	575.00
119	1-12	B	200	3.30	660.00
120	1-20	A	300	2.30	690.00
121	1-21	A	400	2.20	880.00
122	1-24	B	300	3.00	900.00
				Total	$5,080.00

3. During January the following stores requisitions were issued for direct material:

Number	Date	Material	Units	Production Order No.
61	1- 2	A	20	254
62	1- 2	B	60	254
63	1- 3	B	80	262
65	1- 4	A	80	261
66	1- 6	B	20	261
67	1-10	A	40	263
68	1-10	B	20	262
69	1-11	A	300	262
70	1-14	B	60	263
71	1-15	B	100	264
72	1-19	A	80	265
73	1-20	B	120	265
74	1-22	A	100	262
75	1-27	A	640	264
76	1-28	B	60	264

4. Stores requisition #64 was issued January 10 for 50 units of material C which were used in making factory repairs.
5. Record of Production orders.

a. Started in January:

#262 for 50 units of product X;
263 for 20 units of product Y;
264 for 80 units of product X;
265 for 60 units of product Y.

b. Finished in January:

#254, 261, 262, 264 (262 and 264 finished January 23 and 30, respectively).

6. A summary of the individual daily direct labor time tickets for January showed the following:

Production Order No.	Hours	Amount of Direct Labor @ 70¢ per hour
254	120	$ 84.00
261	120	84.00
262	200	140.00
263	90	63.00
264	320	224.00
265	200	140.00
	1,050 hr.	$735.00

7. Payroll accrued at January 1:

	Direct Labor	Indirect Labor	Total
For December 30 and 31, 1940......	$58.00	$21.00	$79.00

8. Payrolls vouchered in January:

	Direct Labor	Indirect Labor	Total
January 4 (for week ended that date)	$160.00	$ 60.00	$220.00
January 11 (for week ended that date)	163.00	62.00	225.00
January 18 (for week ended that date)	158.00	57.00	215.00
January 25 (for week ended that date)	165.00	60.00	225.00
Totals	$646.00	$239.00	$885.00

9. Payroll accrued at January 31:

	Direct Labor	Indirect Labor	Total
For Monday, January 27, to Friday, January 31, inclusive	$147.00	$48.00	$195.00

10. Depreciation on the plant and equipment is at the rate of 2% annually.
11. The stores ledger and the finished goods ledger are to be maintained on the basis of a moving average cost.

12. List of January 1941 sales invoices.

No.	Date	Units	Amount	
1	1-3	10 X	$ 400.00	
		20 Y	1,000.00	$ 1,400.00
2	1-4	15 X	$ 600.00	
		10 Y	500.00	1,100.00
3	1-8	20 X	$ 800.00	
		50 Y	2,500.00	3,300.00
4	1-10	11 X	$ 440.00	
		1 Y	50.00	490.00
5	1-11	5 X	$ 200.00	
		16 Y	800.00	1,000.00
6	1-14	25 X	$1,000.00	
		25 Y	1,250.00	2,250.00
7	1-16	10 X	$ 400.00	
		10 Y	500.00	900.00
8	1-18	20 X	$ 800.00	
		10 Y	500.00	1,300.00
9	1-21	20 X	$ 800.00	
		8 Y	400.00	1,200.00
10	1-25	54 X	$2,160.00	
		5 Y	250.00	2,410.00
11	1-28	15 X	$ 600.00	
		5 Y	250.00	850.00
12	1-31	5 X	$ 200.00	
		10 Y	500.00	700.00
		Total Sales	......	$16,900.00

13. Write off prepaid expenses at January 31, 1941, as follows:

To:

Selling Expense	$16.00
Administrative Expense	23.00
Manufacturing Expense	10.00
Total write-off to expense	$49.00

REQUIRED:

a. Store ledger accounts for materials A, B, and C on moving average cost basis.

b. Production order cost sheets.

c. Finished goods ledger accounts for products X and Y.

d. General journal entries. All entries may be made as summary entries under date of January 31. Direct material cost to be charged to Work in Progress may be obtained from a summary of costed stores requisitions. In this case, it will be satisfactory to obtain the information from the OUT section of the material accounts. Adjusting entries must be made for depreciation and for prepaid expenses. Ignore accrual of income tax.

e. Show general ledger accounts as they would appear after the January postings and prepare a trial balance at January 31.

f. Prepare a statement of profit and loss for January and a balance sheet at January 31, 1941. Under- or over-applied manufacturing expense may be absorbed in the cost of goods sold.

g. Prove that control account balances agree with their corresponding subsidiary ledger account balances.

Stores account—Stores ledger
Work in Progress—Production order cost sheets
left in "in-progress" file
Finished Goods—Finished goods ledger

h. Show journal entries to close the books.

NOTE:

Closing entries normally would be made once a year and under- or over-applied manufacturing expense could be shown on interim monthly balance sheets as a deferred charge or credit, as the case may be.

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